

acctgatgca gctgtttata gctcagaggc cagatatgag agaagaagaa ttagaagata 60
 ttaaacagtt caagaaaaca accataagtt gttacttacg ttgcttagat ggccgctcct 120
 gctggactac ttttaataagt gccttcagaa tactattaga atctgatgaa gacagacttc 180
 ttgttgtatt taatcgagga ttgattctaa tgacagagtc tttcaacact ttgcacatga 240
 tgtatcacga agctacagct tgccatgtga ctggagattt agtagaactt ctgtcaatat 300
 ttctttcggt tttgaagtct acacgccctt atcttcagag aaaagatgtg aaacaagcat 360
 taatccagtg gcaggagcga attgaatttg ccataaact gttaactctt cttaatcct 420
 atagtcctcc agaacttaga aatgcctgta tagatgtcct caaggaactt gtacttttga 480
 gtcccatga ttttcttcat actctgttgc ctttctaca acacaacat tgtacttacc 540
 atcacagtaa tataccaatg tctcttggac cttatttccc ttgtcgagaa aatatcaagc 600
 taataggagg ggaaagcaat attcggcctn cgcgccctga actcaatatg tgcctcttgc 660
 ccacaatggt ggaaaccagt aagggcagg atgacgttta tgatcgatg ctgctagact 720
 acttcttttc ttatcatcag ntcattccatc tattatgccc agttgcaatc aactgtgaaa 780
 aattactgga acattagtta actgagtggc ctanttgnct atgaaggttt g 831

<210> 3439

<211> 712

<212> DNA

<213> Homo sapiens

<400> 3439

aacgccgggc agggcggcgg gcgcgctcag tctggcggcg gctgccgtga gctgactgac 60
 gttccgggaa cgccgcagca gcccgcgccg cccgcagcct agccgagccg cgccgccgg 120
 gcctcgcccc cccgcctgcc cgccatgggtg tcatggatca tctccaggct ggtgggtgctt 180
 atatttggca ccccttacc tgcgtattat tcctacaagg ctgtgaaatc aaaggacatt 240
 aaggaatatg tcaaatgat gatgtactgg attatatttg cacttttcac cacagcagag 300
 acattcacag acatcttctt ttgttggttt ccattctatt atgaactaaa aatagcattt 360
 gtagcctggc tgctgtctcc ctacacaaaa ggctccagcc tcctgtacag gaagtttgta 420
 catccacac tatcttcaaa agaaaaggaa atcgatgatt gtctggtcca agcaaaagac 480

cgaagttacg atgcccttgt gcacttcggg aagcggggct tgaacgtggc cgccacagcg 540
 gctgtgatgg ctgcttccaa gggacagggt gccttatcgg agagactgcg gagcttcagc 600
 atgcaggacc tcaccacat caggggagac ggcgcccctg ctccctcggg cccccacca 660
 ccggggctctt ggcggggccan cggnaaacac cggcagccta anatgtccaa ga 712

<210> 3440

<211> 840

<212> DNA

<213> Homo sapiens

<400> 3440

agctggctgg gcggttagga gggcccgggg ccgagacgat ggctgaccac aaccctgaca 60
 gcgactccac gccgcgcacg ctgctgcgac gcgtgctgga tacagcggac ccgcgcaccc 120
 cgcggcgacc ccggagtgt cgggctggag cccggagagc cctgcttgaa acggcttccc 180
 ccaggaagtt gagtggccaa acaaggacga tagccagagg gcgttcccat ggagccaggt 240
 ctgttggcag atcggcccat attcaggcca gtgggcactt ggaggaacag acacctcgga 300
 cgctgctgaa gaacatccta ctaactgcc cagaatcttc catcctgatg cctgagtcgg 360
 tagtgaagcc agtgccagca ccgcaggcgg tccaaccctc cagacaagag agcagttgcg 420
 gcagcctgga gctgcaactt cctgagctcg agccccccac aaccctggct ccaggtctgc 480
 tggcccctgg caggaggaaa cagaggctga gactgtcagt gtttcagcag ggagtggacc 540
 aggggctgtc tctctcccaa gagcctcaag ggaatgtga tgcctcttc ctnccagatc 600
 cctcaacctg acctttgcca cgcctcttca gccacagtca gtgcagaggc ctggcttggc 660
 ccgcagacct tcagcccgcc gagctgtaga cgtgggtgcc tttttgcggg atctgcgaga 720
 tacttcctgg cttcttcaaa cattgtgttg gaggacaccc agccgttctt ntaacccatg 780
 gntggcttcc cccaacgtgt attacttcct tgnccittgac gccttacact ggggcttgaa 840

<210> 3441

<211> 890

<212> DNA

<213> Homo sapiens.

<400> 3441

```

ggttaatgga ggaagagatg gaaggctcgt gccatgattt ggtactgggt catctgactg 60
tccatgcagt tagctacgca ttctgcagac ttctccatc cccagctccc acagttacaa 120
aaagttcttt cctgctctga gttctgaaat gtcacattc ccagctccaa gaggattccc 180
aaaatgaatg tttaccttct cttacagttc agtctagcct tcacatcttg ggaggggtta 240
gagggggcag aggaaaggaa ctttagctgc ctaggtgcag tttaaagagg gtctaggtac 300
tgtggctctc agcagccttt gaccctgggg ccactctctt catcttatgg aggacaaggc 360
ctttggttcc ctggaggttc actgaaaatc actgacatga ggcagattga ttaataggat 420
aaaagtcaca caaatttatt taatgtgagt acacatgaac cttcaaatg aagacccaaa 480
gacacagggg aaattgtcca tttttatggg tgggtacaac aaagtatgga cagccatgta 540
gaaatatgat tgaacaaaaa gggatatgac taatgctaag agactgagtg gggaaaccaa 600
gcaaggcctg cctgtctgga ttcttcttgg cctctctgag catgcattcc tctgtgaacc 660
cagaaaatct gagacagctc tnagtccaga aagtttattt tgccaagttt ganggccacc 720
tgtgacacaa cctcaggaag tcctgatgac atgtgcccaa gtggccgggg cacagcttgg 780
tttatacatt tanggagaca tgagacacat caattatgta gaagtcctta cttttcagaa 840
gatgngacac taaccagccc tacttcagta cagtantgca acaatgtgat 890

```

<210> 3442

<211> 849

<212> DNA

<213> Homo sapiens

<400> 3442

```

agtcgaggta tcttctcccc aaccactgct cttattttta ttattgcaga cggaagttga 60
agactattga catagtaaag agctctgggt ggcttgaaac gaaagtttaa ctttgcgac 120
aaacaggact tattgtaggg ggtggtcaaa atagtccgg cggggcgggg ccatgacccc 180
tgacgtcgcc ggtccggcgc gcagttcagt ttggcggttc cgggtaccgt ctcacattgg 240

```

ggcgggatgt gggagcggct gaactgcgca gcagaggact tttattctcg tctccttcag 300
 aaattttaatg aagaaaagaa aggaatccgt aaagacccat ttctctatga ggctgatgtc 360
 caagtgcagt tgatcagcaa aggccaacca aaccctttga aaaatattct aaatgaaaat 420
 gacatagtat tcatagtgga aaaagtgcct ttagaaaagg aagaaacaag tcatattgaa 480
 gaacttcaat ctgaagaaac tgccatatct gatttctcta ctggcgaaaa tgttggaacca 540
 cttgctttac cagttgggaa ggcaaggcag ttaattggac ttacacccat ggctcacaat 600
 cctaatatga cccatttgaa gattaatctg ccagttactg cccttcctcc cctttgggta 660
 agatgtgaca gttcagatcc tgaaggtact tgttggttag gagctgagct tatcacaaca 720
 aacaacagca ttacaggaat tgncttatat gtggcagttg taaagctgat aaaaattatt 780
 ctgtaaatct tgaaanctaa aaanttcccc agaaaagaca tcacttgcta ctgtacatcc 840
 aangctttg 849

<210> 3443

<211> 802

<212> DNA

<213> Homo sapiens

<400> 3443

gggccggggcc ttcgggcccg aggcggcggc ggcggtataa agccggcgac tgggagcatg 60
 taatgtcgga atgcggaggc cgcggcggcg gcagcagcag cagcgaggac gccgaggacg 120
 agggaggggg cggcggcggc cccgcgggct cagactgcct cagctcgagc ccgaccctgg 180
 ccacagcgtc ctgcggcgggc cggctccgtc gcgggctgcg tggcgccctc ctcatggcgc 240
 gccagcggcc cgagctgctc tgcggggccg tggcgctcgg ctgcgcgctg ctccctgccc 300
 tcaagttcac ctgcagtcga gcaaaagatg tgataatacc agcaaagcca cctgtcagct 360
 ttttctcctt gaggtctcca gtccttgacc tcttcaggg gcagctggat tatgcagagt 420
 acgttcgacg ggattcagag gtggtactgc tcttcttcta tgccccttgg tgtggacagt 480
 ccatcgctgc cagggcagaa attgagcaag cagcaagtcg gctttcagat caggtgttgt 540
 ttgtggcaat taactgttgg tggaaccagg ggaaatgcag aaaacagaaa cacttctttt 600
 attttcctgt aatatatctg natcatcgga gttttggacc aatcgaatac aaaggcccca 660

tgagtgcctg ttacattgag aagtttgtcc ccccggtgat gaaaccactt ctctacatcc 720
catcttcaat tcagaattac tagaattttc ttcttcaaac ttacnaaccc tgggantact 780
tcggggtacc tttnaagttc aa 802

<210> 3444

<211> 868

<212> DNA

<213> Homo sapiens

<400> 3444

agaatgccta tgagacacag gaagaaggca gcagacaaga atcttccttg ccgtccttta 60
gtatgtgcag tactggacct gatggtagag tttattgtaa cacacatgat gaaggagttt 120
cctatggatc tctatatacg ctgcatccag gtagtacaca aactgctctg ctaccagaag 180
aagtgtcggg tacgcctgca ttacacctgg cgggagctct ggtcagcctt gataaatttg 240
ctgaagttcc ttatgtcaaa tgagactgta cttttggcca aacacaacat ttttacatta 300
gcccttatga ttgtgaacct atttaatatg tttatcacat atggcgacac atttctgcca 360
acccccagca gctatgatga actttactat gagattatcc gcatgcacca gagctttgac 420
aacctctact ccatggtcct gaggccttct accaatgcag gccagtggaa ggaagcagct 480
agcaaggtga cccatgcatt ggttaatatc agagccatca tcaaccactt taaccccaaa 540
attgagtcct acgctgctgt gaatcacata tccaactgt cagaggagca ggtgctggag 600
gtggtgagag ccaactatga cacgctcacg ctgaagctgc aggatggcct ggaccagtat 660
gagcgctact cagagcagca caaggaagct gccttcttca aagagctggg tcgatccatt 720
agcaccaacg tccggagaaa cctgggtctn cacacacttc agcccaagaa gtcctgcttc 780
aaaggagttc ttncactatc tcctggaggc cacgccttac ctganccagc cctttggact 840
ggcccttacc ccattgaagg atcatngg 868

<210> 3445

<211> 862

<212> DNA

<213> Homo sapiens

<400> 3445

```

agaccggcgc gtaggaacc taccggtacc ggccgcgcgc tggtagtcgc cgggtgtggct 60
gcacctcacc aatcccgtgc gccgcggctg ggccgtcgga gtagtcgtgt gcttctctcc 120
tgcacgcggt gcttgggctc ggccaggcgg ggtccgccgc cagggtttga ggatggggga 180
gtagctacag gaagcgaccc cgcgatggca aggtatattt ttgtggaatg aaaaggaagt 240
attagaaatg agctgaagac cattcacaga ttaatatatt tggggacaga tttgtgatgc 300
ttgattcacc cttgaagtaa tgtagacaga agttctcaaa ttgcatatt acatcaactg 360
gaaccagcag tgaatcttaa tgttcactta aatcagaact tgcataagaa agagaatggg 420
agtctgggta aataaagatg actatatcag agacttgaaa aggatcattc tctgttttct 480
gatagtgtat atggccattt tagtgggcac agatcaggat ttttacagtt tacttggagt 540
gtccaaaact gcaagcagta gagaaataag acaagctttc aagaaattgg cattgaagtt 600
acatcctgat aaaaaccga ataaccctaa tgcacatggc gattttttaa aaataaatag 660
agcatatgaa gtactcaaag atgaagatct acngaaaaag tatgacaaat atggagaaaa 720
gggacttgag gataatcaag gtggccagta tgaaactgga ctattatcgt atgaatttgg 780
natttatgat gatgatcctg aaatcnttac cattggaaag aagagaattt gagctgtggt 840
naattttgaa aactgggggt gg 862

```

<210> 3446

<211> 867

<212> DNA

<213> Homo sapiens

<400> 3446

```

ttatagatat attccatgaa tataatcaga ctcttactcc tgtacttcta gaaatgatgc 60
aaacacttca aggaccaca aatgtggaag atatgaatgc actgttaatc aaagatgctg 120
tgtataatgc tgttgatta gctgcttatg agctctttga cagtgttgat tttgatcagt 180
ggtttaaaaa ccagcttctt ccagaattac aagtcattca caataggat aagccattgc 240

```

gacgcagggt gatttggctc atcggtcagt ggatttctgt gaaattcaag tctgacttaa 300
gacccatgct ttatgaagca atctgtaact tgcttcaaga tcaagattta gtggtccgta 360
ttgaaacagc tacaactttg aagttaactg ttgatgattt tgaatttaga acagatcagt 420
ttctaccgta tttggaaacc atgttcacac tactttttca gttactgcag caagttacag 480
aatgtgacac aaagatgcat gttttgcatg tcctttcttg tgtgatcgaa agagtcaaca 540
tgcagatacg accatatgtg ggatgtttgg tacaatatat gccctcctt tggaagcaga 600
gtgaagaaca caatatgttg agatgtgcta ttttgacaac acttattcat cttgttcagg 660
gattaggagc agacagcaag aacctgtccc tttcctgctc ccagttattc aactgagtac 720
agatgtttca cagcctccac atgtttatct tctggaagat ggtttagaat tatnggtcag 780
taactttggg aaaacagtcc atgtnttaca cccagaattg cttcgnatat tttcaagaaa 840
tatggtcacc ccttttttgg acttaag 867

<210> 3447

<211> 738

<212> DNA

<213> Homo sapiens

<400> 3447

ggtggcgggt ggctggcgggt tccgttaggt ctgagggagc gatggcggta cgcgcgttga 60
agctgctgac cacactgctg gctgtcgtgg ccgctgcctc ccaagccgag gtcgagtcgg 120
aggcaggatg gggcatggtg acgcctgata tgctcttcgc cgaggggacc gcagcctacg 180
cgcgcgggga ctggcccggt gtggtcctga gcatggaacg ggcgctgcgc tcccgggcag 240
ccctccgcgc ccttcgcctg cgctgccgca cccagtgtgc cgccgacttc ccgtgggagc 300
tggacccccga ctggtcccc agcccggccc aggcctcggg cgccgcccgc ctgcgcgacc 360
tgagcttctt cgggggcctt ctgcgtcggg ctgcctgcct gcgccgctgc ctcgggccgn 420
cggccgcccc ctcgctcagc gaagagatgg agctggagtt ccgcaagcgg agcccctaca 480
actacctgca ggtcgcctac ttcaagatca acaagttgga gaaagctgnt gctgcagcac 540
acaccttctt cgtgggcaat cctgagcaca tggaatgca gcagaacctt gactattacc 600
aaacatgtc tggagtgaag gaggcgcgact tcaaaggatc ttgagacttc aaccccatat 660

tgcaaagaan tttcgacttg ggaagtgccg acttcttact taaganggaa caagccacan 720
ggaaagcttg tggcccca 738

<210> 3448

<211> 715

<212> DNA

<213> Homo sapiens

<400> 3448

tcgcgcgcgc cgccgccccg cgctgctgaa gctggcgctcg ctgccgccct cgtgccacgc 60
accgccgcac gcgctggagc aggaggagac gccgctgtga cgccgccggc gggaagggtc 120
cgcgcgccat ggctggccgc tcgcgccctt tcccaccgct gccgggaaac cgaggctcgc 180
cccaaacgga tttgcgtgaa accagcccaa ggttccgggc ccccccaacc gagccccgcg 240
cccggggact gactcgggga ccgactcagg gacctccga gcgccaggac tcaggggccc 300
acctgcagcg gctgcaggcc cagcgcccg cagcgccctg ggccgagcgc cgtttccagg 360
ccctcgccag gtctttgaac tgcaggtaaa gtggcaggaa cgtcttccgt ctgctcagcg 420
tttggggatt tagactccta aagccagtac ctgccccgtt tccccccag gttccgtcct 480
gcccgcgccc ggtctcaggg tggcggcccc ggacacggnc cgtccccaca gacgaggtct 540
ccggcctgag ctgtcgacc tggcgcggag gtcgcccggt gtgccctggc tgggtgagag 600
gtggcctggc gggccggagc ttgccaaaga ttacgggcag tccttaagt gatggtgggg 660
cccaacaagc ttgttctgtc cccttaacaa accaggggnc ccccnnggg gcca 715

<210> 3449

<211> 775

<212> DNA

<213> Homo sapiens

<400> 3449

aagataaatg cggtacgtgc aatagttcct aataagagca acaatgaaat tatcctggtt 60

ttgcagcact	ttgataactg	tgtggacaaa	acagtacaag	cattcatgga	aggtagtgcc	120
agtgaagtac	tcaaagaatg	gacagtaaca	ggcaagaaaa	agaacaaaaa	gaagaaaaac	180
aaaccgaaac	ctgccgcaga	accaagtaac	ggcatcccag	attccagtaa	atcagtttcc	240
attcaagagg	aacagtctgc	gccttcctca	gagaaagggtg	gtatgaatgg	ctacccatgtc	300
aatgggtgcc	tcaatgacac	tgagtctgtg	gactcactca	gtgaagggtt	ggagacactt	360
tcaatagatg	ccagagaatt	ggaggatccc	gagtctgcca	tgctagatac	gctggataga	420
acaggatcca	tgctgcagaa	tggtgtctct	gattttgaga	ccaagtcttt	gactatgcac	480
tctattcaca	attctcaaca	acccaggaat	gctgccaaat	ctctctcaag	acctaccaca	540
gaaactcagt	tttcaaatat	ggggatggaa	gatgttcccc	tcgccaccag	taaaaagcta	600
agttccaata	ttgaaaaatc	tgtaaaagac	cttcagcgct	gcacagtgtc	cttgcacggt	660
atcgagttga	gttaagaaga	natggatgcc	tccattagaa	aatgaacaag	cctttgtgat	720
tganactggt	atggtcagaa	tggcgtnttc	tgatggcaag	tgaactgaac	atgga	775

<210> 3450

<211> 734

<212> DNA

<213> Homo sapiens

<400> 3450

agctcgttcg	ccgcactttg	gaggettcgg	ctgcccctcc	gacccacgta	gggcccggac	60
ccgggcctcc	ttgtgaacag	cgtgccggct	tcgccccacg	ggttcaccgg	ctggctgggc	120
ttcaagcgcc	gaggccgccc	cagtgacccc	gccccggggc	cgaggatgtg	aggcgggccc	180
ggcgtcccca	caccgggccc	gggcgcccgg	agtgggcgtc	tgggcagcgc	caggcgatgg	240
ccctgctgct	ggtgctcctc	gcctcttggg	gcctggggca	gtgagggggc	cggcgggcgt	300
gggccgagtg	gccgcgggcg	ccatggaggg	ggtgctgtac	aagtggacca	actatctgag	360
cggttggcag	cctcgatggt	tccttctctg	tgggggaata	ttgtcctatt	atgattctcc	420
tgaagatgcc	tggaaagggt	gcaaaggagg	catacaaatg	gcagtctgtg	aaattcaagt	480
tcattctgta	gataatacac	gcatggacct	gataatccct	ggggaacagt	atttctacct	540
gaaggccaga	agtgtggctg	aaagacagcg	gtggctgggtg	gccctgggat	cagccaaggc	600

ttgctgactg acagtaggac ccanaaggag aaagagtttg ctgaaaacac tgaaaacttg 660
 aaaaccaaaa tgtcagaact aagactctac ttgtgacctc cttgntnaag caaagtagga 720
 taaaacaaaa ngaa 734

<210> 3451

<211> 664

<212> DNA

<213> Homo sapiens

<400> 3451

cagaacaggg aaatgtggtg tttaccagtg caatagatgg gtggggcttt ggaattgagc 60
 acttcgccag aatctacagt caaaaaattg gcatcaaaaa ggaagttctt atgaaaacct 120
 tgtggggaga ttactatata aatatgaagg ctaaaaagat catgaagggt gatcaggcca 180
 aaggaaagaa acctttatgt gtacagttga tcctggaaaa tatatggagt ttgtatgatg 240
 ctgttttgaa aaaggacaaa gacaaaattg ataaaatagt gacttcttta ggattaaaaa 300
 ttggagcccg ggaggcacga cattcagacc cttaaagtta gatcaacgcc atttgcagtc 360
 agtggctacc catatcccat gctgttcttg ctatggtgtg tcagaaactt cctagtcctc 420
 ttgatattac agctgagaga gtggagagac tgatgtgcac aggatcacia acttttgact 480
 cttttccacc agaaactcaa gcaactgaaag cagcttttat gaaatgtgga agtgaggaca 540
 ctgctccagt tattatattt gtttccaaaa tgtttgcagn tgatgctaag gccttgcctc 600
 agaataaagc caaggcctct cactcaagaa gaaattgctc anagacntga gcctgcaaga 660
 caaa 664

<210> 3452

<211> 793

<212> DNA

<213> Homo sapiens

<400> 3452

tgttcattga agaacaggcg gctggaattg ggaagagtgc caaaatagtg gttcatcttc 60
 acccagctcc tcctaacaaa gaacctggcc cattccagag tagtaagaac tcctacatca 120
 aactctcctt caaagaacat ggccagattg agttttacag gcgtttatca gaggaaatga 180
 cacaagaag atgggagaat atgccagttt cccagtcatt acaaacaat agaggacccc 240
 agccaggaag aataagggct gtaggaattg taggtattga aaggaaactg gaagaaaaaa 300
 gaaaagaaac tgacaaaaac atttctgagg ctttgaaga cctcagcaaa ctaatgatca 360
 aggctaagga aatggtggaa ttatcaaaat caattgctaa taaaattaaa gacaaacaag 420
 gtgacatcac agaagatgag accatcaggt ttaaateccta cttgctgagc atgggaatag 480
 ctaaccaggt taccagagaa acctacggct caggcacaca gtaccacatg cagctggcca 540
 aacaactggc tggaatattg caggtgcctt tagaggaacg agggggaata atgtcactca 600
 cggaggtgta ctgcttagta aaccgagctc gaggaatgga attgctctca ccagaagatt 660
 tagtgaatgc gtgcaagatg ctggaagcac tgaaattacc tctcaggctt ccgtgtgttt 720
 gcagtggccg tcatggtaat tgagcttcag tctccaagga agangaaatg gtggncttgg 780
 ncctggagac aag 793

<210> 3453

<211> 770

<212> DNA

<213> Homo sapiens

<400> 3453

atgtgaccac actgaattta atgcatttct tgatttgaag aactccctaa atgaagtaaa 60
 aaacctactg agtgataaga aactggatga gtggcatgag cacactgctt tcactaataa 120
 agcagggaaa atcatttctc atgttagaaa atctgtgaat gctgaacttt gtactcaagc 180
 atggtgtaag ttccatgaga ttttgtgcag ctttccactt attccacagg aagcttttca 240
 gaatggaaaa ctgaattctc tacacctttg tgaagctcca ggagctttta tagctagtct 300
 caaccactac ttaaaatccc atcggtttcc ttgtcattgg agttgggtag cgaatactct 360
 gaatccatac catgaagcaa atgacgacct catgatgatt atggatgacc ggcttattgc 420
 aaataccttg cactgggtgg acttttggcc agataacact ggtgatatca tgaccctgaa 480

attcttgact ggacttcaga atttcataag cagcatggct actgttcact tggtcactgc 540
 agatgggagt tttgattgcc aaggaaaccc aggtgaacaa gaagcttttag tttcttcttt 600
 gcattactgt gaagttgcac tgctctgacc actcttggaa acggtggctc ttttggctta 660
 aagatgttta ctatgtttga acattgggtcc ataaacttga tggacctgct taactgggtgg 720
 ttttgaccca agnnccatgt tttnaaacct ggttcttagc caaggcaggg 770

<210> 3454

<211> 753

<212> DNA

<213> Homo sapiens

<400> 3454

tttccatggg gctctcaagg aatgagaagt caagatcaca tccaagtttag caagcagcac 60
 attaataatc agcaacagcc acctcaacta cgttggagaa gcaattctct caataatggc 120
 cagccgaaaa gtacgcgctg ccaggcatct gcctccgagg agtcattaaa ctcccacagt 180
 ggtcacccca ctgctgatgt acagactttc caggcaaagc gccatattca tcaacaccgt 240
 cagtcttact gtaattataa cactggagggt cagtttagagg gcaatgcagc cacttcctat 300
 cagaagcaga ctgacaaacc cagccactgt agccagtttg tgacacctcc gcggatgagg 360
 agacagttct cagcacccaa tctcaaagct ggtcgagaaa ccacagtata aatcagttac 420
 tggacaaact tgaaatcatg gtggaagaaa cagacagtgt tagctcatga tttgatttgg 480
 ttctaccttt ggcccttgagt tcttattatt tacattataa atattaactg gttttatatt 540
 gttaagacaa aacactggta aaagtttcaa cacctncctt ttgcttgat accataaatg 600
 ggcagtttct gaaattttgg ataaagcatc aagactcctt tttctgaaac gttcctnctt 660
 ttttagtgcc taattaatat acttacttac acagacttgn cccatcttga tgtaagttgg 720
 tatggtttta taatgcctat naattaatct gac 753

<210> 3455

<211> 777

<212> DNA

<213> Homo sapiens

<400> 3455

```

attttaccca gcccctgttc aagatggagt tgctgtggtt cacacatctc tgacaaaaat   60
acagggctat tcggagtcac cagacctgga gtttgagtat gctgacacag acaagtgggc  120
tgcagagctc tcggagcttt acagctacac ggaagggcca gaattcctga tgaatcgaaa  180
atgctttgag gaggacttcc ggatccatgt gacagacaag aagtggactg agctggatac  240
caaccagcac cggacccatg ccatgaggct cctggatggc ttggaagtca ctgccaggga  300
gaagagactc aaggtggctc gagcaattct ctatgttgct caaggcacgt ttggggagtg  360
cagctcggag gcagaggtgc agtcctggat gcgctacaac atctttctcc tcctggaggt  420
gggcacgttc aatgctttgg tggagcttct gaacatggaa atagacaaca gtgccgcctg  480
cagcagtgtc gtgaggaagc ctgccatctc cctggctgac agcacagacc tcagggtcct  540
gctcaacatc atgtacctga tagtggagac cgttcacag gagtgtgagg gtgacaaggc  600
tgagtggagg accatgcggc agaccttcag agccgaactg ggctccccgc tgtacaacaa  660
tgagccattt gccatcatgc tgn ttgggat ggtgaccaa ttttgacagtg gtcacgcccc  720
tactttccat gaanaaagtc tcttgctgtc tggaaacagt attgtgcacn ctaggcg    777

```

<210> 3456

<211> 902

<212> DNA

<213> Homo sapiens

<400> 3456

```

cttcatggac acccacacag attcactgga gagcaaagcc taccagagtc cctgtcagca   60
gcactgtttc tagaagcttc cacatgagca gacagcatgg agtcctgggg gctaataaag  120
cagcaatgtc agcatgagca caggcaggga gaggcaagag gagcagagta aagggaacg  180
ttctcttcat tcttccacct gcctgtcccc cagccgacac gtcccttccg ttcctgcaa  240
ggccatttcc agggaggctt acgaagacag cagatgatgg tgatggaagg agtctgggtg  300
ctgagctgtg ccatggacct ggagagaaac tgagtccgag ggatgtcaac atgccaagtc  360

```

catggaaata tcagtgggct ggaattctag ctgcctgaaa gaagacattc ctcacacaag 420
 acctcacaat catatccatg gaattatagc actgggctct ccagatgggtg ctacaggaag 480
 acctccagaa atttgacgat cctctattca aggccctacc acagagacac acaggaacgg 540
 aactcagaat cacaacaaaa gaaactttga tccaagaaag aaaatgatct ttaaaaagac 600
 cctcgtttca tgctggccga tgctgagaaa atctgctctg aaggatattt ggagacactg 660
 attaaaaggt agtaccatca ccacatattt aacttcccc tctttttcct ctgcttctag 720
 gagtagagaa accaacaaaa ccaaccggag agagatgggt tcaaacaatc tgtccccac 780
 cccaccacta ttcacacctt tcacaagggc ccagccacaa agccagtgc acatgacatc 840
 aatcattaag caaagtggaa aatggttgtc ccantgggan ggggaattct tcgngttacc 900
 ta 902

<210> 3457

<211> 789

<212> DNA

<213> Homo sapiens

<400> 3457

gctcgcagac tccggagtcg ccaacatgtc gaccgccatg aatttcggga ccaagagctt 60
 ccagccgcgg cccccggaca agggcagctt cccgctggat cacttaggtg aatgtaaaag 120
 ctttaaagag aaattcatga agtgtcttca taacaataat tttgaaaatg ctttgtgcag 180
 aaaggaatca aaagaatatt tagaatgcag gatggagaga aaattgatgc tacaagaacc 240
 attggagaaa ctgggatttg gagacttgac tagtggaana tcagaggcaa aaaaatgaat 300
 tttgatgaga agacccttg gccgtgttca gtggtctctc aggacggagg gcatcatcct 360
 gcctcttagg ttggctgagg cctgcgtgtg gtgtccttag aaatgggctt cgaatagaag 420
 ctccagccct gtgggggcgt ctctgggta gggagtggcg tcccgttttc ccttaggagg 480
 gtgtttctgc attgaacccc tgagtgggac ggcgttcccg gcaaagctgg gagggaggcg 540
 agcgtggggc aagacccttg tcttcgaggc cggggccctc ttgtatgggg cggttttatg 600
 ttgcagtcct ctgatacttt ctgagttcaa agaggtaaat gtataaattt cagtccttcc 660
 tgaacacaga tatcatcaga aaattacat tccctancag gatgttttcg tgtttgnatt 720

cgtatatgcc agttcatttc ctttgaaaaa aaaaaaaaaag tggaccccaa agtnggaagt 780
gagaacctt 789

<210> 3458

<211> 772

<212> DNA

<213> Homo sapiens

<400> 3458

atatttgggct tcgcttccac cgcaccagcc ggcctaccca gtccttccgg tatcgcgttg 60
ctcaggggct tttcaacct ctgtcagtcg gaaaaccatc gccgaggccg tggggggact 120
cctatccatg gtgttgaagc gtcgagccga ctagggaacc tccttccccg ccaggatgga 180
agtcgcatca gtcgccgcct attgcgcggg ctgttcttcc ctgtgttctg ccgcccgtg 240
ccgcattcgc tgccctctgt ggcttttctg ctggctcgaa gatcggcctg gagcagcgac 300
gccaccgtg ggcaaggccg agactctgta ggcttctcc gaatcccgtc gacctccagc 360
cgctgagcgc cgcggcccta cctgagagac tgtcaagaaa aaggagatgg agccggggac 420
aggcgggatcg cgaaaacggc ttggccctcg ggccggcttc cggttctggc cacccttttt 480
ccctcggcga tcgcaagcag gctcttctaa gttcccgacg cctcttggcc cggaaaactc 540
cgggaacccc aactgcttt cctctgcccā gcccgagact cgggtcagtt actggacgaa 600
actgctctcc cagctccttg cgccgctccc cggattgctt canaaggtgc taatttggag 660
ccaacttttc ggtggaatgt ttccgaccag atggctagat tttgctggag tctacaagcg 720
ccctgagagc cctgaangga cnggagaaac caagccggcc ccacaagngc aa 772

<210> 3459

<211> 760

<212> DNA

<213> Homo sapiens

<400> 3459

atttctacga cttttctctc agctgaggct tttcctccga ccctgatgct cttcaattcg 60
 gtgctccgcc agccccagct tggcgtcctg agaaatgctc ccaatatgga acatgtacta 120
 gcagttgcca atgaagaagg ctttgttcga ttgtataaca cagaatcaca aagtttcaga 180
 aagaagtgct tcaaagaatg gatggctcac tggaatgccg tctttgacct ggcctgggtt 240
 cctgggtgaac ttaaacttgt tacagcagca ggtgatcaaa cagccaaatt ttgggacgta 300
 aaagctgggtg agctgattgg aacatgcaaa ggtcatcaat gcagcctcaa gtcagttgcc 360
 ttctctaagt ttgagaaagc tgtattctgt acgggtggaa gagatggcaa cattatggtc 420
 tgggatacca ggtgcaacaa aaaagatggg ttttataggc aagtgaatca aatcagtgga 480
 gctcacaata cctcagacaa gcaaaccct tcaaaaccca agaagaaaca gaattcaaaa 540
 ggacttgctc cttctgtgga tticcagcaa agtgttactg tggctccttt tcaagacgag 600
 aataccttag tctcagcagg agctgtggat gggatattca agtctgattt tggattccac 660
 tggctctact ttatttgcta attgcacaga cgatacatct acatgtttaa tatgactggg 720
 ttggaagact tntccagngg ctattttcaa tgggcacccn 760

<210> 3460

<211> 713

<212> DNA

<213> Homo sapiens

<400> 3460

ttactggata tcaagatgac taagaaatag cacttgcctt gaaggagctt ttctatttga 60
 ggaaaaagac atgtatataa ataactgcaa acagaatgaa acaagtgtta tgtagatcta 120
 catacagtga catgccatgg gaatgctgaa cactgagcaa cagtttcaac tagcgaattg 180
 gcacaggaaa catgaaaaat aagcgtattt tcaatatgac aagaatggtc atttctggat 240
 ataagaacaa gagagaagtc atgggtatat ggaaaggcat ggactcttca aggaagagca 300
 agtagtctaa tgtagatgct gtataggaat ctggggacaa agggacagat aagtgggtga 360
 gacaaagagg ctggaaatag ggttatgggc tagatcatga gtgacctgta agcattagga 420
 gttttgattt attttggaat aagaaacatt tatggctttt gagaaggaaa attacacaag 480
 ggaaaagaaa ggatttttat tttttatttt tatttttggga gagatgagat ctactatgt 540

tgcccaggct ggtcttgaac tcctgaactc aagcaatcct cccggctcgg cctctgaaac 600
 ttctaggatt ataggcgtga gccactacgc ccagccagga ttatgttttt ttatgggagg 660
 gatgagaata ttggtanggt gggtagagga ttaatganag agaattgnat atg 713

<210> 3461

<211> 675

<212> DNA

<213> Homo sapiens

<400> 3461

agcgattctc ctgcctcagc cttccgagta gctgggatta caggcatgca ccaacacgct 60
 cagtgtttta ctgctgaaga gatcttttcc cttcatggct tttcaaagtc tacccaaata 120
 accagctcca aattctctgt catctgtcca gcagtcttac agcaattgaa ctttcacca 180
 tgtgaggatc ggcccaagca caaaacaaga ccaagtcatt cagaagtttg gggatatgga 240
 ttctgtcag tgacgattat taatctggca tctctcctcg gattgatttt gactccactg 300
 ataaagaaat cttatttccc aaagattttg accttttttg tggggctggc tattgggact 360
 cttttttcaa atgcaatttt ccaacttatt ccagaggcat ttggatttga tcccaaagtc 420
 gacagttatg ttgagaaggc agttgctgtg tttggtggat tttacctact tttctttttt 480
 gaaagaatgc taaagatgtt attaaagaca tatggtcaga atggtcatac ccactttgga 540
 aatgataact ttggtcctca agaagaaact catcaaccta aagcattacc tgccatcaat 600
 ggtgtgacat gctatgcaaa tcctgcntgg ccagaagct tatgggncat tttccatttt 660
 tggataatgg tcang 675

<210> 3462

<211> 814

<212> DNA

<213> Homo sapiens

<400> 3462

gattcacgta gaccttgtca ggaaattggt cactatccat ctaggcccta gaagtgaagag 60
 gaggaatctt acgaactcat tttctagttg ctttgtattc aaatcttagt tgttaattat 120
 cttgttctag taatcaccta aaatattaga cacttaaaat gttggggaaa cgtaagcgtg 180
 tgggtgttgac aattaaggac aagcttgaca ttattaagaa acttgaggaa ggcatctctt 240
 tcaaaaaact ttccgtgggtg tacggaattg gtgaatccac agttcgtgat attaaaaaga 300
 acaaagaaag gattataaac tatgcaaaca gtccagatcc taccagtgga gtatccaaac 360
 gtaaactctat gaagtcatca acatacgagg agcttgatag agttatgata gagtgggttta 420
 accaacagaa aacagatggg attccagtgt ccggaacgat ttgtgcaata caagccaagt 480
 tcttttttga tgctttggga atggaagggtg attttaatgc atcgtcaggc tggctaactc 540
 gatttaagca gcgccatggt attccaaagg ctgctggtaa aggaacaaaa ttaaaaggag 600
 atgaaactgc tgccagagaa ttttgtggta gctttcagga atttgttgaa aaagagaatc 660
 tacaccagag caaatttatg gtgctgatca aactggattg gtttggaaat gtctaccatc 720
 aaggacatta actcttgaaa ctgaccaaag tcttntgggt gtaggtcaag ccnaagaggg 780
 gaatcatcat tatgggggtg cncaaagcc caca 814

<210> 3463

<211> 867

<212> DNA

<213> Homo sapiens

<400> 3463

aactgggctt ggcttctca agcaaaagtt cccttttctg aagaaataag aaatttgatt 60
 ctacatata tttctgacat gaactttgtg caagatttat gtgaagatct ctatgaactt 120
 ttttaagactg acaaaggatt tgacaaagcc acttttgaaa gtcagatgtc tgtgatgagg 180
 ggtcagatct taaaccttac tcaggcattg agagacggga agagtccttt ccagctagta 240
 cagatacctt gtgtgattgt ggaacgcagt caaggtggaa gtcagggtcg gattgtccac 300
 ctgagcaatt cctttacca gactgtcaat tgcaggaagc catttttttc ctcttggtag 360
 taaatgtcag agtaagagaa acaaactgtt tagaattatc atgtttttta aacatcatag 420
 taatataaat ctgctgttag gagctccagt tgctaaaacc tcaatttaag tctttaaaag 480

gttgatattt gaatgtaacc aaaagtttac agttttttgt ccaaataatta aatttctatt 540
 tcagggaaga agtgctatat ctctatatatt gtatttttgt agaaaatttg tattttatgt 600
 tgttgtagt ttaaaaggta attttacaca tgctggaatg actgtaatta ctctagaatt 660
 ccaagtagaa tacaataact tttaatatg agaagaatgt tcatgctaatt tcttcttaca 720
 ttacaaaagg cctttgagga tgcctacgtc tgaaattgct cttacgaact ttaataaaat 780
 ggtagctaa tagaaaaaca ggtnagaata aagcaatggt gncttaattc aaaagctgct 840
 atttagaatt ggataagnct tctaaag 867

<210> 3464

<211> 754

<212> DNA

<213> Homo sapiens

<400> 3464

actaagccca ggccaggttg ctgtgctggc tcctcctct tagaaagata tgcaacctcc 60
 aatgagttcc ctgatgatgc cctgaacttc atcaagacgc acccgctcat ggatgaggca 120
 gtgccctcca tcttcaacag gccatggttc ctgagaacaa tggtcagatg cagctatgat 180
 ggagtcgaag acaaaaggat catgggcatg cagctggaca gagcaagcag ctctctgtat 240
 gttgcgttct ctacctgtgt gataaagggt ccccttgccc ggtgtgaacg acatgggaag 300
 tgtaaaaaaa cctgtattgc ctccagagac ccatattgtg gatggataaa ggaagggtgt 360
 gcctgcagcc atttatcacc caacagcaga ctgacttttg agcaggacat agagcgtggc 420
 aatacagatg gtctggggga ctgtcacaat tcctttgtgg cactgaatgg gcattccagt 480
 tccctcttgc ccagcacaac cacatcagat tcgacggctc aagaggggta tgagtctagg 540
 ggaggaatgc tggactggaa gcatctgctt gactcacctg acagcacaga ccctttgggg 600
 gcagtgtctt ccataatcac caagacaaga agggagtgat tcgggaaagt tacctcaaag 660
 gccacgacca gctggttccc gtcacccttc ttgncattg cagtcctcct ggctttcgca 720
 tgggggccgc ttntcggcat taccgntact gggt 754

<210> 3465

<211> 808

<212> DNA

<213> Homo sapiens

<400> 3465

```

atccttatgg cagcatgagg aaagctccag ggagtgatcc cttcatgtcc tcagggcagg   60
gccccaacgg cgggatgggt gacccttaca gtcgtgtctgc cggccctggg ctaggaaatg  120
tggcgatggg accacgacag cactatccct atggaggtcc ttatgacaga gtgaggacgg  180
agcctggaat agggcctgag ggaaacatga gcactggggc cccacagccg aatctcatgc  240
cttccaaccc agactcgggg atgtattctc ctagccgcta cccccgcag cagcagcagc  300
agcagcagca acgacatgat tcctatggca atcagttctc caccaaggc accccttctg  360
gcagccccctt cccagccag cagactacaa tgtatcaaca gcaacagcag gaaccccgga  420
ggcatggcgg gtaatgatgt ccctcaagtc tggctctctg gcagagagca catgggcatt  480
agataccatc aacatcctgc tgtatgatga caacagcatc atgaccttca acctcagtca  540
gctcccaggg ttgctagagc tccttgtaga atatttccga cgatgcctga ttgagatctt  600
tggcatttta aaggagtatg aagtgggtga cccangacag agaacgctac tggatcctgg  660
gangttcaac aaggtgtcta gtccaacttc catgganggt ggggaagaag aagaagactt  720
ctaggtccta aactagaaga ngaagaagaa gaggaagtag ttgaaaatga tgaggagata  780
gccttttang caaggacaan ccacttta                                     808

```

<210> 3466

<211> 791

<212> DNA

<213> Homo sapiens

<400> 3466

```

tatttccatg caagtggaag acggtaccgt ctccccacat ttgagaagac tgttttgcat   60
cactctttgc tattgaagga agcagtgatg gtgaatttcc ttctgtttgg gttccttgtg  120
tctataactt cctttgtggt aaagccatca ggaagaatag tgggagtggg gtatatggtc  180

```


agggtgctca tatcctgctt tagcctagct gcttcttacg gagtgcaagg gagaactctg 240
 agaagcagta tgtaaatacc agggagctga ttgctgaata ttgtggtctc atctgaatat 300
 tgtggtctca tctaaatatt gacaccaggc aatgaagcag aaatagagta tgtgtccctt 360
 tatgcgtggg taacttaagc ttctgtcatg tgggaagggg gaccgaatct tccctgggag 420
 gaaggctcca aattctcact acttctgtgt tacttgaagg gggaagcata aggaaccag 480
 tttgaaggca acattgtgtg ccatgaatct gcttattaat caacatgcct tgттаатgtc 540
 ctctgccctg aacagccctt actcagttct catttggaag gttatttttt ggggttacat 600
 cctgtttgtt tcagaattta aaaccctnca tgggtgggtca cttgaggtca ggagttcaag 660
 attagcctgg ccaacttagt gaaactccgg ctctgctgaa gatgcaaaaa ttagccaggt 720
 gtggcacacg cctgtaatcc cagttnccct ggagcccgag gcaggagaaat cnccttgaac 780
 cctgggaggc a 791

<210> 3467

<211> 850

<212> DNA

<213> Homo sapiens

<400> 3467

tgtggggcct tataatccagg ttcccagtcg cggaagcttt cctgtgctgg gggaccctat 60
 aaagccccag tctctcagta ttgcctcaaa tgctgctcat ggaagatcca aatccgctaa 120
 tgatggaaac tggccaacat taaaacagaa ttctagctct tccgtgaaac cagtgcaggt 180
 ggccggtgca gactggaagg atccgagcgt ggaggggtct gtcaagcagg gcaactgtctc 240
 cagccagcct gtgcccttct cagcactggg acccacggag aagccgggca tcgagattgg 300
 taaagtgcc aatcccatcc cgggtgtagg caagcagctg cctccaagct atgggacata 360
 cccaagtcc acgcctctgg gtccctgggtc ggcaagctcc ctggaaagga ggaaggaagg 420
 cagcttgccc aggcccagtg caggcctgcc aagtcgacag agggccaccc tgctgcccgc 480
 cacaggcagc accccccagc caggctcctc acaacagatt cagcagagga tttccgtacc 540
 gccaagtccc acgtacccgc cagcgggacc acctgcattt ccagctgggg acagcaagcc 600
 tgaactccca ctgacagtgg ccattaggcc tttcctggct gataaagggt caaggccaca 660

gtcttccagg aaaggacccc agacagtga ttcaagttcc atatactcca tgtaccttca 720
gcaagccaca ccacctaaga attaccagcc cggnagcaca caagcgcctt aaataatcag 780
ttaaagcagt gtatggtaag cccgtttacc ttcgggttca acctttcatc gccgntgccg 840
ttnttacggg 850

<210> 3468

<211> 820

<212> DNA

<213> Homo sapiens

<400> 3468

aatataatga agaagtggt gacttaaaga taaagcgatc taaacttcat gaacaagttt 60
tagatttggg cctgacatgg aagaagataa taaaattttt gaatgaaaaa ctggagaaga 120
gtaaaatgca aagtataaat gaagacttaa aagatatatt acatgctgca aagcagatag 180
aagtgaattg tccattccag aagaggaggc tggatggaaa agaggaggat gagaagatga 240
gcagagcttc tgacagattc agaggactaa gatgacaaaa atgactaaaa tggacaaaag 300
aagaaataga aaatctgaat atttgactat taaaggaatt taatctgtaa ttaaaaacct 360
taagtacaaa gaaatctata tgctatgatg gctttaatgg agaatgtcat aatgtcattt 420
aaaaaggat gagagtacta ttgtagatta aaagaggtta aaggcatata ataatacaaa 480
tgtaatgtat gatccttgat tgactcttga atcagaaaaa aattacgtat ttttggggcc 540
gttgagaaaa tctgaatatg ggctggacat cattaggtaa tattagatct caggtgtgat 600
aatgttgttg ctatgtaaga ggatataccta aatctcagga gaagcatact gcagtatata 660
tagtggtatc tcatgaagat taaaatgtct gtcaaagtgt tcagcnaaag aaatacacat 720
gatgtgtgtg tgtgatcaag tgtttatnat ggagtgggat taataaatat gagaaagata 780
ggggtgaatt tggttggnaa gtaataaang gttaaaaatt 820

<210> 3469

<211> 645

<212> DNA

<213> Homo sapiens

<400> 3469

```
gcaggggcca gacccggacg gctccagagc ctccagagcc tccgggtctg ggcggcgctt 60
cggctcctcc cgagccgcct gctagccccg cgccgcactc catccccaca ggctggggac 120
gggcccgggtg cggctgtgtg gggtcgggag cggagttgca gaatccaagg acccattttg 180
ttctttctcc gcaactgctt atgggaggca ttatggcccc caaagacata atgacaaata 240
ctcatgctaa atccatcctc aattcaatga actccctcag gaagagcaat accctctgtg 300
atgtgacatt gagagtagag cagaaagact tccctgcccc tcggattgtg ctggctgcct 360
gtagtgatta ctctgtgcc atgttacta gtgagctctc agagaagggg aaaccttatg 420
ttgacatcca aggtttgact gcctctacca tggaaatfff attggacttt gtgtacacag 480
aaacggtaca tgtgacagtg gagaatgtac aagaactgct tcctgcagcc tgtctgcttc 540
agttgaaagg tgtgaaacaa gcctgctgtg aattcttaaa aaagtcaant ngaccctct 600
aattgccttg ggtattangg aattttgctt gaaacccac aattg 645
```

<210> 3470

<211> 792

<212> DNA

<213> Homo sapiens

<400> 3470

```
agtgggctct gcggataact cagacgccat taagctgggg aatccaaact ctaaaagaag 60
gacgcatttt aggtaagatc tagtggctag atcttcaggg tgggcttcgt tcttgtggaa 120
atcagtcaag aaagatcgga ttcgcggtta tttatgcaaa tcactctgggt ggatttgtta 180
cggagtcaaa ctgcgccttc tggaccgggt ctgaacaatg gagactgcgc tagcaaaaac 240
gccacagaaa aggcaagtta tgtttcttgc tatattgttg cttttgtggg aggctggctc 300
tgaggcagtt aggtattcca taccagaaga aacagaaagt ggctattctg tggccaacct 360
ggcaaaagac ctgggtcttg ggggtggggga actggccact cggggcgcgc gaatgcatta 420
caaaggaaac aaagagctct tgcagcttga tataaagacc ggcaatttgc ttctatatga 480
```

aaaactagac cgggaggtga tgtgcggggc gacagaaccc tgtatatatgc atttccagct 540
 cttactagaa aatccagtgc agttttttca aactgatctg cagctcacag atataaatga 600
 ccatgccccca gagttcccag agaaggaaat gctcctaaaa atcccagaga gcaccaccca 660
 gggactgngt ttccttaaaa atagcccagg actttgacat aggtagcaac actggtcana 720
 actacacaat caagcccaaa ntcacacttt catggtgcta cgcataatcg ccgganatgg 780
 cagaaaaatcc ca 792

<210> 3471

<211> 841

<212> DNA

<213> Homo sapiens

<400> 3471

tttcctgcat tgcacatca tagcttttaa tataatgcta cagaatcata tccacattag 60
 gttagagttc agatatttgg atatgaatac ctaacctagc catatccatg gccatctctg 120
 ttcttttcag caatgttttc catattatat tagcaatgac agaaacagaa caagccaaga 180
 tccagtcagt tcttgggagc ttgtctagag caccaagtaa tgaaatagcc aggtagtggg 240
 atgactgtac ctttaaaaat acataattta gtttgcaagc tatattatgc tactttctat 300
 tttccttggt actttatagc aattcatttt accctcacia agtcaattta gaaccttate 360
 attaactggg atgtgtagtg atatttttgg gcctctgggt ttcattgtgt aatacgagga 420
 atatttatatt aaaatagatt tatattagagg aggcacagtg ttgttgatct gtgtgacacc 480
 acccatattt ttaaaaacct ttgtatgttt ctctaaattt gttgttgact gaatataata 540
 gaccctacca taattcgta aatatactg attagttaca tcctttgtgt gagattagct 600
 gtaaagtata ctgctcttat tcttattcag aatagttaat tggtagccaa aaatacatgt 660
 atcacagatg ttaggtccga atttaaacag cacagtcaag tgctatggaa gtttttctgn 720
 taaattagta gattaaagaa ttctatccct aagcatgggg agcanccgtt ttcctttggg 780
 aggtaggact ctatctaag gaacagtgcc agttcacact ttggacttaa aatggncntn 840
 a 841

<210> 3472

<211> 813

<212> DNA

<213> Homo sapiens

<400> 3472

```

ataacccgtg tcttcaaaac catctacat gaagctaaaa cataccatca accctattct 60
tttatatttt atacattntc taatatcact ttatactatt ttaacatata ttcggtttta 120
ttttttctcc gagtcaagac aagaaaaatc aaaccgaatt aaagcaaagc ctgtaaattc 180
aaaacctgat tctgcataca gatctgttaa tagtttggat ggtttggctt cagtattata 240
ccctggatgt gatacttttag ataaagtttt tacatatgca aaaaacaaat ttaagaacaa 300
aagactcttg ggaacacgtg aagtttttaa tgaggaagat gaagtacaac caaatggaaa 360
aattttttaa aaggttattc ttggacagta taattggctt tcctatgaag atgtctttgt 420
tcgagccttt aattttggaa atggattaca gatgttgggt cagaaaccaa agaccaacat 480
cgccatcttc tgtgagacca gggccgagtg gatgatagct gcacaggcgt gttttatgta 540
taattttcag cttgttacat tatatgccac tctaggaggt ccagccattg ntcattgcatt 600
aaatgaaaca gaggtgacca acatcattac tagtaaagaa ctcttataaa caaagttgaa 660
ggatatagtt tctttgttcc cagcctgctg gcacatcatc actggtgatg gaaagccacc 720
cgacctggtc ccgagttnc ccaaggccatc attgtgcata ccatggctgc antgggaagn 780
cctgggagcc caaggccagc atgggaaaac cca 813

```

<210> 3473

<211> 822

<212> DNA

<213> Homo sapiens

<400> 3473

```

acatcagcat cagcaggaca ggctcctgag gaccctcag gccctggcac aggccctct 60
gggacttgtg aggctccggt agctgtcgtg accgtgacct cagctccgga gcctgctgaa 120

```

aactctcaag acctgggctc cacgtccagc ctgggacctg gcatctctgg gcctcgaggg 180
caggccccgg acacgtgag ttacttggac tccgtgagcc tcatgtctgg gaccttggag 240
tccttggcgg atgatgtgag ctccatgggc tcagattcag agataaacgg gctggccctg 300
cgcaagacgg acaagtatgg ctcccttggg ggcagccagt actcgggcag cctagagagc 360
tccattccccg tggacgtggc tcggcagcgg gagctcaaat ggctggacat gttcagtaac 420
tgggataagt ggctgtcacg gcgattccag aaggtgaagc tgcgctgccg gaaggggac 480
ccctcctctc tcagagccaa agcctggcag tacctgtcta atagcaagga acttctggag 540
cagaaccacg gaaagtttga ggagctggaa cgggctcctg gggaccccaa gtggctggat 600
gtgattgaga aggacctgca ccggcagttc ctttccacg agatgtttgc tgctcgaagg 660
ggggcatggg caacaaggaa cctgtacccg aatncttgaa ggccttacac cattntacc 720
gggccttgac caaaggggtt acctggccaa ggcccaaggc cccccgtgg gctttgcngg 780
tccctggcctt aatgccacat tgcccttgcn ggaancaagg cc 822

<210> 3474

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3474

caatgaaaac ctctaaaatt ggaccatact accacagttt atgtatgcta tagaatttat 60
tttgagattg ataacatact ttagagggtg tatggatcaa caaatggacc cacagatttt 120
tcttatatgt taagtgaaca gagacatagg aaactcatag aaaaagaaac taaatgaaga 180
atttggttcc catattgatg ttataataga tgatcattat accttgacct tctttctctg 240
gttctgattg aagattgaga ctttggaaga gaaataatat gaaaaatggt aactgattat 300
cagacgacgt tattcagaaa aagattttat tttctggaga gtgacctaac atcccttgaa 360
taatagattt ctgtgcttca tctcacagga attaaaagaa tttattcacc tggttaacttg 420
atcatcagat caagatttta ttcacaaaat gttggagaag acagaaaaat atcagtaaaa 480
ttctaaaact ggatatgatg gaggttatca cataaaatag atgatataag gcagttgaca 540
aggtgccccat gattatgtag tagtaaatac tgggaagaag gatgtgttca aaggccgttc 600

cttgggggnc t caggttcctt accattnttg aaanttaa

638

<210> 3475

<211> 788

<212> DNA

<213> Homo sapiens

<400> 3475

ctacgttgtc ttttcacttc tctggggagg agtgatctgg ccgttcctca actaccagag 60
gaigtactac gtgttcatcc agatgctgtc cagcgggccc gcctggctgg ccatcgtgct 120
gctgggtgacc atcagcctcc ttcccagcgt cctcaagaaa gtcctgtgcc ggcagctgtg 180
gccaacagca acagagagag tccagaatgg gtgcgcacag cctcgggacc gcgactcaga 240
attcaccctt cttgcctctc tgcagagccc aggctaccag agcacctgtc cctcggccgc 300
ctggtacagc tcccactctc agcagggtgac actcgcggcc tggaaggaga aggtgtccac 360
ggagccccca cccatcctcg gcggttccca tcaccactgc agttccatcc caagtcacag 420
ctgccctagg tcccgtgtgg gaatgctcgt gtgatggatg gtcctaagcc tgtggagact 480
gtgcacgtgc ctcttcttgg cccccagcag gcaaggaggg gggtcacagg ccttgccctc 540
gagcatggca ccctggccgc ctggaccag cactgtggtt gttgagccac accagtggcc 600
tctgggcatt cggctcaacg caggaggagc attctgctgg cccaccctgc gcgctgtcat 660
gcagaggcca ttccccagc cctgtgtctt tcaccacct gccatcattg gcctttgctg 720
gcactgggga gagaagaacc cgtccangga cccatggtgg nccacatgtg gattgccaca 780
tgctgntg 788

<210> 3476

<211> 696

<212> DNA

<213> Homo sapiens

<400> 3476

aaaatatgaa ggcaaaggaa atacatgtga cttaatgaac ctcacacaaa ctgaaggttg 60
 aagtcaggct ccggggcttt ttcttgact tctctctgt tttcccctgt gtacttgggc 120
 aaggatcttc acctgtgtct tagtatcgat ttttatgaat cagtactgat ggagtatatg 180
 tgtgtttaat ggtgaatatt aaccatagaa gggctgagtg ctcctcccca tcttgggact 240
 cataatctgt gaaataaaac agtctgggcc tccctgcccg ggtagcatca ggatagacag 300
 atgaagagaa gagaaagtaa tgtgtcttgg gcatcttctg tatgccaggc accatgccag 360
 aggctttaag tacttcatct tacttgactc ctcagatggc cctgttagaa gcctatttta 420
 tgcaaaagga aactgtagct gggggtaagt aacttgccaa ggggtcacac agctagaaag 480
 cgggtggacc tagatgcagg cgcagccatt cagacccac agtccacatt ctttgagcc 540
 agtccattga gggctctcaa ggaatgtggc gggctcccctg gtctcgctcc cccgcagatc 600
 ttgcatctca gcatgcgcct accacatcag ttgacattag cacagctttt ncattaggag 660
 aacgaagtga aactnctggt anaacggatg atggct 696

<210> 3477

<211> 802

<212> DNA

<213> Homo sapiens

<400> 3477

gctggaagag cagcggcccc agccggggcc atggcgaagc tgctgagctg cgtcctaggc 60
 ccccggtctt acaaaatcta ccgggagagg gactctgaaa gggccccggc cagcgtccct 120
 gagacgcca cggcagtcac tgccccccat tccagctcct gggatacgta ctatcagccc 180
 cgtgccctgg agaaacatgc tgacagcatc ctggcactgg cttcagtatt ctggtccatc 240
 tcttattact cctctccctt cgccttcttc tacttgtaca ggaaagggtta cttgagtttg 300
 tccaaagtgg tgccgttttc tcaatgtgt gggacattgc tgctacttct ggcagggtgtg 360
 gcctgcctcc gaggcattgg ccgctggacc aacccccagt accggcagtt catcaccatc 420
 ttggaagcaa cacatcgga ccagctctca gaaaacaaga ggcagcttgc caactacaac 480
 tttgacttcc ggagctggcc agtcgacttc cactgggaag aaccagcag ccggaaggag 540
 tctcgagggg gcccttccc cgggggtgtg gccctgcttc gccanagcc cctgaccggg 600

ggacaagcaa gacacccttc tnaaccgggt taagaagctt gncttgtcag atcaccagct 660
acctggtggc gcacacccta gggcgcccgga tgctggattc aggctntggg gacctgctgc 720
anaaagccct tatgcctggg cttgttgaag ggcaggcccc actggtggaa aaatgtaatg 780
ggcccccggc naaacttggt gg 802

<210> 3478

<211> 873

<212> DNA

<213> Homo sapiens

<400> 3478

tcatttgtaa tgtaaagatc agttatatat atatatttgt aatgagagca agtatatact 60
cattatagaa tcaatttaag aagtttataa taaccagag tagaatttct atatctagtc 120
ttggtttttt tcatgaatat ttgcaagtaa ttaccattaa attcacacat gaaagattaa 180
tctgaaagat cagagacat gttattcctg accacgatag aactgctcct gtggtttggg 240
acaagtaata aaacaactgc ttgagttttg tttgtaaaat acataattaa tatttgacct 300
acctcaaaat gtattgagga tctgtgaaat gctaagtgcc caaaataaaa tattgctgat 360
tgtcttttta ttaaagtaa atttcctcat taagccaacc tgccttctgt aagtcacagt 420
gcttaaactc caggattttt cattaggaga gacctgtcgt taaggatttg taggtataat 480
tgcttagcct ccattattgg tgcttgggat agagagggtt tagatttttg tttttttttt 540
tgttctgcct caaagctcag ttatttgaag acatttgtaa gctattggat catcacttga 600
atcaagattt tgactagtga gcttaattgt ccatttctta caatttcaaa gttacagtct 660
cagaaatggn taattttaat aactgtccta tcataaatta atgttggaat aaattgaagt 720
tggtgataaa tacttcatga aaactaaagt ctgaaataaa ttacttggtt tatgtccaat 780
agctactacc atttgataga acagnttttg ganggaacca tttcattcct ggaaccccag 840
catctgacat gggcttcan caagtttga ata 873

<210> 3479

<211> 807

<212> DNA

<213> Homo sapiens

<400> 3479

```

cctttattat acagaagcag gatctatgtt ttttactctt tttgcgtatt tgatgtgtct 60
ttatggaaat cataaaactt cagccttcct tggattttgt ggcttcatgt ttcggcaaac 120
aaatatcatc tgggctgtct tctgtgcagg aaatgtcatt gcacaaaagt taacggaggc 180
ttggaaaact gagctacaaa agaaggaaga cagacttcca cctattaaag gaccatttgc 240
agaattcaga aaaattcttc agtttctttt ggcttattcc atgtccttta aaaacttgag 300
tatgcttttg cttctgactt ggccctacat cttctcggga tttctgtttt gtgcttttgt 360
agtagttaat ggtggaattg ttattggcga tcggagtagt catgaggcct gtcttcattt 420
tcctcaacta ttctactttt tttcatttac tctctttttt tcctttcctc atctcctgtc 480
tcctagcaaa attaagactt ttctttcctt agtttgaaa cgtagaattc tgttttttgt 540
ggttacctta gtctctgtgt ttttagtttg gaaattcact tatgctcata aatacttgct 600
agcagacaat agacattata ctttctatgt gtggaaaaga gtttttcaaa gatatgaaac 660
tgtaaataatt tggtagttcc agcctatata tttgctggnt ggagtacagc tgactcattg 720
aaatcaaggc aatttttttg gaatttaatg gttttcatat gcctgggtca ctggtatagg 780
ttcctcagaa actggtggga attcnnn 807

```

<210> 3480

<211> 700

<212> DNA

<213> Homo sapiens

<400> 3480

```

gtcgccgcgc ggccgccggt gagccgcatg gagccccggg cggcggacgg ctgcttcctg 60
ggcgacgtgg gtttctgggt ggagcggacc cctgtgcacg aggcagccca gcggggtgag 120
agcctgcagc tgcaacagct gatcgagagc ggcgccctgcg tgaaccaggt caccgtggac 180
tccatcacgc ccctgcacgc agccagtctg cagggccagg cgcggtgtgt gcagctgctg 240

```

ctggcggctg gggcccaggt ggatgctcgc aacatcgacg gcagcacccc gctctgcgat 300
gcctgcgcct cgggcagcat cgagtgtgtg aagctctcgc tgtcctacgg ggccaaggctc 360
aacctcccc tgtacacagc gtccccctg cacgaggcct gcatgagcgg gagttccgaa 420
tgtgtgaggc ttcttattga cgtcggggcc aatctggaag cgcacgattg ccattttggg 480
accctctgc acgttgccctg tgcccgggag catctggact gtgtcaaagt gctgctcaat 540
gcaggggcca acgtgaatgc ggcaaagctt catgagactg cccttaccac gcggccaagg 600
tcaagaatgt tgacctcatc gagatgctta tcgagtttgg cggnaacatn taccgccgga 660
caaccgcggg aagaaccgtc tgactacacg tgganaca 700

<210> 3481

<211> 891

<212> DNA

<213> Homo sapiens

<400> 3481

gcatgcgctg tggctaattgc cgtaggctcc ttcagggtg agccatcccg cgtgtcttgc 60
gctcgggtgga aatgcccagc cgaggagcgc gaccagagga cagctctgtg ctgatcccca 120
ccgacaattc gacccacac aaggaggatc taagcagcaa gattaaagaa caaaaaattg 180
tggtggatga actttctaac cttagaaga ataggaaagt atataggcaa caacagaaca 240
gcaatatatt ctttcttgca gaccgaacag aaatgctgtc tgagagcaag aatatattgg 300
atgaactgaa aaaagaatac caagaaatag aaaacttaga caagaccaa atcaagaaat 360
agtcaacctg atttcacata acaatgtgtg gcatttgtt tttctgtaa ttttctgctg 420
agcatttcag tcaagattta aaagaggact tactatataa tcttaaacag cggggaccca 480
atagtagtaa acaattgta aagtctgatg ttaactacca gtgtttattt tctgctcacg 540
tcctacactt gaggggtgtt ttgactaccc agcctgtgga agatgaaaga ggcaatgtgt 600
ttctatggaa tggagaaatt tttagtggaa taaagggtga agctgaagag aatgacactc 660
aaattttgnt taattatctt tctcctgta agaatgaatc tgagattttg tcaactttct 720
cagaagtaca aggtccctgg catttatata ttatcaagca tctagtcatt atttatgggt 780
tggtagggat ttttttgggc gccgaaactt gcttttggca ntttagtaat ttgggccaag 840

aagttctggc tntntttaat tgggacccca acattttgga ttggcaaata a 891

<210> 3482

<211> 877

<212> DNA

<213> Homo sapiens

<400> 3482

atcttgtctt gttcccgaag aagtagaagc atcgaaagcg ttggagaggt gttaccggaa 60
 cggcggcgac aaggggtgtt ccgaactaga gtggggcata cataatcttg ctgctatgct 120
 tcgaagctgt agtctgaatc aacctaagtt ttaaacagaa ggtgaacctc tgagatagaa 180
 aatcaagtat attttaaag aagggatgtg ggatcaagga ggacagcctt ggcagcagtg 240
 gcccttgaac cagcaacaat ggatgcagtc attccagcac caacaggatc caagccagat 300
 tgattgggct gcattggccc aagcttggat tgcccaaaga gaagcttcag gacagcaaag 360
 catggtagaa caaccaccag gaatgatgcc aaatggacaa gatatgtcta caatggaatc 420
 tgggtccaaac aatcatggga atttccaagg ggattcaaac ttcaacagaa tgtggcaacc 480
 agaatgggga atgcatcagc aacccccaca cccccctcca gatcagccat ggatgccacc 540
 aacaccaggc ccaatggaca ttgttctctc ttctgaagac agcaacagtc aggacagtgg 600
 ggaatttgcc cctgacaaca ggcatatatt taaccagaac aatcacaact ttggtggacc 660
 acccgataat ttgacagtgg ggccagtga cagtttgac tatcagcatg gggctgcttt 720
 tgggtccacc gcaaggtgga tttcatcctc cttattggca accaggacct tcaggacctt 780
 caacaccttc ccagaatcga agagaaaggc nttatcattc agggtcgcac gttcacctat 840
 tgactttctg ggaagcagga ncctnccaaa ttgccca 877

<210> 3483

<211> 684

<212> DNA

<213> Homo sapiens

<400> 3483

```

acacttcagc cacagaaggg aggggttttc cggcatcagg gttggcaact gagtcagatg 60
gagggaatgg ctccagccaa aacaactcgg gcagcattcg ccatgagctt cagtgtgacc 120
tgagacgctt ctttctggag tatgaccggc ttcaggagct ggatcagagc ctgagtgggg 180
aagctcccca gacccaacag gcccaggaaa tgctcaacaa taacattgaa tctgagaggc 240
caggcccttc ccaccagccc accccacaca gcagtgagaa caactccaac ctgtcccgtg 300
gccacctgaa tcgctgtcgt gcttgccaca atctcctgac cttcaacaac gataccctgc 360
gctgggaaag aaccacacct aactactcct ctggcgaggc tagttcctct tggcaggtcc 420
ccagctcctt tgagagtgtg ccatcaagtg gcagccagtt gccacctctc gagcggactg 480
agggccaaac gccagctcc agcaggctgg agttgagcag ctctgctagt ccgcaggagg 540
agaggactgt gggggtggcc ttttaaccagg agacaggcca ctgggaaaga atttacacc 600
agtccagcag atctggaact gtgtcacagg aggccttaca tcangatatg cctgangaga 660
gctctganga ggattcactc agga 684

```

<210> 3484

<211> 732

<212> DNA

<213> Homo sapiens

<400> 3484

```

gtcttctcgg tcacgttttc tgttatatit gcctatgtag ctgatgtcac tcaggagcac 60
gagcgaagta cagcttatgg atgggtctca gccaccttg cggtagtct tgtcagcagc 120
ccggccattg gagcatatct ttctgccagt tacggagaca gcctcgttgt gctgggtggc 180
acagtgggtg ctcttctgga catctgcttc atcttagtgg ctgttccaga atctctgcct 240
gagaaaatga gaccggtttc ctggggagct cagatttctt ggaaacaagc agaccctttt 300
gcgtcgttga agaaagtgg aaaagattct actgtcttac taatctgcat caccgtgttt 360
ctttcatacc ttctgaagc tggacagtat tcaagttttt ttctctatct caggcaggtc 420
ataggttttg gatctgttaa aattgcagca ttcatagcta tggtaggaat tctgtctatt 480
gtggctcaga cggcctttct tagcatcttg atgagatcat taggaaataa gaatactgtc 540

```

ctccttggct tgggcttcca gatgctccag ttagcctggt acggttttgg atcacaggcc 600
 tggatgatgt gggcagcagg gaccgtggct gccatgtcca gcatcacgtt tccngcaatc 660
 agtgcctcgc tcactcggaa tgcanagtca gatcancaag gagttgcccga ggggatcata 720
 actggaataa ga 732

<210> 3485

<211> 724

<212> DNA

<213> Homo sapiens

<400> 3485

tcaggagacc cttaatgcct cagaaaccac acccaaagaa cttcggatca agagacaaaa 60
 ctccctcagat agcatctcaa gcctcaacag catcactagc cattccagca tcggcagcag 120
 caaggatgct gatgcgaaaa agaagaaaaa aaagagttgg cttcgaagtt ccttcaacaa 180
 agcgttcagt ataaaaaagg ggcccaagtc agcttctctca tactcggata tagaggagat 240
 tgctacaccc gactcttcag cccctcatc ccccaaacta cagcatgggt ctacagagac 300
 tgcttcaccc tccatcaagt cctccacctc gtcctccgtg ggcaactgat tcaccgaggg 360
 ccctgctcac ccagccccc acactaggct gttccatgca aatgaggagg aggagccaga 420
 gaagaaggag gtatcggagc tgcgctctga gctatgggag aaggaaatga agcttacaga 480
 catccgcttg gaggccctca actctgccc ccaactggat cagcttcggg agaccatgca 540
 caacatgcag ttggaggtgg acctgctgaa agcagagaat gaccgactga aggtagcccc 600
 agggccctca tcaggctcca ctccaggga ggtccctgga tcactctcat tatcttccca 660
 cgccgttcct aggnctggna cttaccatt ccttngggcc cagtctttgc agacacagac 720
 ctgt 724

<210> 3486

<211> 669

<212> DNA

<213> Homo sapiens

<400> 3486

```

aagggtact ccgggatcta cggacccggg ttcccctggc gtaggtcggc cctcggccgc 60
aggggtgaggc tgggcatgca gccgggaccc cgggcgtcct gtcccgttcc tgcgcggcga 120
ctgcggcccc ggcgccctct ctgggcagct ccgcgccgc agcctcgcgt ctcccagat 180
tgtgcggctg taagcaacac aggttcgcgg ccgactcac tgcaccgaga cgctgagggc 240
tgcagcagaa acagtttaat agccagagag gggaggacac ccagatccg cctccctgag 300
ggatttgggg tctggacggg ggcggctggg tgtagggtcg ttggttggtg gggaagtgag 360
gggtgaatcc tgggacagga ggtgaagaaa ccgcattctg ctgaatgggc tccctcgttg 420
ggacttcaac ctgattggcg ccagcctttg ctgggattca ggatctgaga actccggcga 480
ctcttgagca gttctcagag atcttatccc caggcacaat ggggaagccg gcggtcagcg 540
tctgctgtga cctgactctc agggaggcgg ccccttgagg cancggggct ganggcacct 600
ggttaatatc taactgcaat ctgnccttca gcctgctcgc aattcctgtg aaccgggctc 660
atggcttta
669

```

<210> 3487

<211> 908

<212> DNA

<213> Homo sapiens

<400> 3487

```

ctattcagta ccaataccag gataacataa aagagctaga attagaagtc atcaatctgc 60
aaaaggaaaa ggaagaattg gttcttgaac ttcagacagc aaagaaggat gccaaccaag 120
ccaagttgag tgagcgccgc cgcaaacgtc tccaggagct ggagggtcaa attgctgata 180
tgaagaagaa actgaatgag cagtccaaac ttctgaaact aaaggaatcc acagagcgta 240
ctgtctccaa actgaaccag gagatacgga tgatgaaaaa ccagcgggta cagttaatgc 300
gtcaaatgaa aggagatgct gagaagttta gacagtggaa gcagaaaaaa gacaaagaag 360
taatacagtt aaaagaacga gaccgtaaga ggcaatatga gctgctgaaa cttgaaagaa 420
acttccagaa acaatccaat gtgctcagac gtaaaaacgg aggaggcagc agctgccaac 480

```

aagcgtctca aggatgctct ccagaaacaa cgggagggtg cagataagcg gaaagagact 540
 cagagccgtg gaatggaagg cactgcagct cgagtgaaga attggcttgg aaacgaaatt 600
 gaggttatgg tcagtactga ggaagccaaa cgccatctga atgacctcct tgaagataga 660
 aagatcctgg ctcaagatgt ggctcaactc aaagaaaaaa aggaatctgg ggagaatnca 720
 ccttctaaac ttcggaggcg tacattctcc ttactgaaat gcgttgggtca agtttcggag 780
 tcagaagatt ctattccaag cagaattgaa gccttaagac tgaaatggaa ttcaggatgc 840
 tcaaaatggg tgcctacaca gaaacttggt ggatgcagaa agtgaagacc ggacccaaac 900
 aaccgctg 908

<210> 3488

<211> 860

<212> DNA

<213> Homo sapiens

<400> 3488

cactgtatgc tgtgtggaca tgcatttcat gtggctgtgt ggtaagaatt acagcttaca 60
 tatggcttgg acccacatcc gaggaatctg atgttcaact ataccagaac attatcttgc 120
 tatttatgaa attatttaaa cgttcaaaag attgttttta acatggttta atttcccaa 180
 aactacagtt tttttctta gcatgctatt caggtaaaca gtcttataat aaagcatgtc 240
 ccattgtcaa gaaacataaa gtggtgtgaa taccactgaa aatataata tagtatcttc 300
 tgtaaataat agtacctgtg tgaataagga ataggcttgc ctcccagcca ggcaatttcc 360
 tgagggcaca ctaatgatat ccctgaggt gctaagttga tgctgagaca ttttctggg 420
 aattagtcac ggcatgatct ctttcagact ccctgaatac catttagtcc cgtaacagtg 480
 ctcaacaactc atgtgctaata gaatcacaaa ggctttaact agctcccagg ttgtagcctt 540
 cgcaggatct agtttatttg ccacatctct ttatgaacat atagcgattc gcagatctct 600
 ctattcacgg agaggaaggt gttttgcttc ttagatctc aaggtactat tttgtggctc 660
 tcancaggaa gtagaattgg tcctaaatgt gtgctgaatg angacatgat gtcccttctg 720
 gtgccaggac acattctgca tggcattctg tgaaaggcat cctgctgagg ataatgccag 780
 gagcagcaca tttanggtaa tttgctaaac tttcagatgc ntataaattc ctcttttccc 840

ctgaacttac cattcagagn

860

<210> 3489

<211> 795

<212> DNA

<213> Homo sapiens

<400> 3489

```

aatccccgcc atgtgggggc tctgctcgc cctggccgcc ttcgcgccgg ccgtcggccc 60
ggctctgggg gcgcccagga actcgggtgct gggcctcgcg cagcccggga ccaccaaggt 120
cccaggctcg accccggccc tgcatagcag cccggcacag ccgccggcgg agacagctaa 180
cgggacctca gaacagcatg tccggattcg agtcatcaag aagaaaaagg tcattatgaa 240
gaagcggaag aagctaactc taactcgccc caccctactg gtgactgccg ggccccttgt 300
gacccccact ccagcaggga cctcgacccc cgctgagaaa caagaaacag gctgtcctcc 360
tttgggtctg gagtccctgc gagtttcaga tagccggctt gaggcattca gcagccagtc 420
ctttggtctt ggaccacacc gaggacggct caacattcag tcaggcctgg aggacggcga 480
tctatatgat ggagcctggt gtgctgagga gcaggacgcc gatccatggt ttcaggtgga 540
cgctgggcac cccacccgct tctcgggtgt tatcacacag ggcaggaact ctgtctggag 600
gtatgactgg gtcacatcat acaaggcca gttcagcaat gacagtcgga cctggtgggg 660
aagtaggaac cacagcagtg ggatggacgc agtatttcct gccaatcag acccagaaac 720
ttcagtgtt gaaccttctg ccggagcccc aagtggncgc cttcattcgc ctgnttgncc 780
caaaacttgg ctca 795

```

<210> 3490

<211> 844

<212> DNA

<213> Homo sapiens

<400> 3490

gttgccatgt ttgctctgcc cctgggggtgg aggccagagg agatgcttac caggcctgag 60
 accttgagag ttcacccagg gtttgtacgc tgccaccag ggttcccaag gtttctccca 120
 tctggtcaga tgtcgaacac aaaatgtggg cattctgcac ggaaggaaag atcaggcttc 180
 tcttgctgag tgtgtgaaga caggagagc caggccccag cagatgcggc ctagcacact 240
 ctgatttggg tttgtgggga gggcccagga acttgggggt ggtcttggca ttcagagctg 300
 gtgctaaaaa cccagagcag aagcaggag aaggagtgga ggatgggaca gagaagagcg 360
 accactgggg atcagaacag cttttcaggg gccaccttgc agcctaagat aatgccgttt 420
 cagggcctgg gcctgctgtg agagccagaa tgaagcatgt gcaagattgg aatgtgagaa 480
 gaactgtggg gggaaaccag ttttaattaa gtggaagtgc tttgtgcttg tgctgaagtt 540
 gcctgggcct cctgcagctc tggacctcac tggagcggnc ccgccctgcc cttgcctgcc 600
 tttcttttat gctgatgctg gtgggctttt tcctgcttca ggatccatgt aagggactga 660
 ccagggttat ccagccttaa ctgggttcctg caaccactt ttaggtcttc caccangggc 720
 ctattgtgct gtcttcctgt gaccagcaga tcctgtaagg gggatgatcct aattcttggg 780
 gctcttttga gcaagangag aacgttcttt ttcttgaaca aggtgggncc ggttnccttg 840
 ggaa 844

<210> 3491

<211> 902

<212> DNA

<213> Homo sapiens

<400> 3491

aaatcaactt ggattaacct ttcagttacc tctgccagaa ctggagatat ttcaaggtga 60
 aggggaagatt tatgaatgta atcaagttca aaagttcatc agccacagtt cttcagtttc 120
 gccacttcaa agaatttact ctgggggtcaa aaccacata ttttaataaac ataggaatga 180
 ttttgttgat tttccattgc tgtcacaaga acagaaagca cacattagga gaaaacctta 240
 cgaatgtaat gagcagggca aagtcttcag agtgtcttca agccttccta atcatcaagt 300
 aatccacact gcagataaac ctaacagatg tcatgaatgt ggtaaaaccg tcagggacaa 360
 gtcaggcctc gcagaacatt ggagaattcg tacaggagag aaaccttaca aatgtaaaga 420

gtgtggcaag ctcttcaatc gaattgcata ccttgcacga cacgagaaag tgcatactgg 480
 agagagtcct tacaaatgta atgagtgtgg caaggtcttc agtcgaatta cataccttgt 540
 acgacatcag aaaattcata ctagagagaa acctcataaa tgtaacaaat gtggcaaggt 600
 ttatagtagc agttcatacc tagcacaaca ttggagaatt catacaggag agaaacttta 660
 caaatgtaat aaatgtggca aagaatttag tgggcattca agcctnacca cccatctgtt 720
 aatccacact ggagagaaac cttacaaatg taaagaatgt gacaaagctt ttaggcacaa 780
 gtctcctgac agtcatcaga gaaatcatat gggagagaaa ccttataatg tcatgaatgt 840
 ggcaaagtct ttactcaggt tcacatcttg cacgacntcn gaaaattccc ctggagagaa 900
 cc 902

<210> 3492

<211> 692

<212> DNA

<213> Homo sapiens

<400> 3492

acccggcctg ccccgcgga agatggcggc ctgaacgcat ctggcagcgg cggaaagctt 60
 agatcagcct ttccacagct gttagcagca tctgccccaa tttcagctga agattcaggt 120
 gccccaggga ctggaagaaa ttacagtgcc tacttggaag gaagaagaga tagcgacttg 180
 cccagtcga accccagagc gggagctgtg gctaaaggaa gtggaggggc cgtgggatgc 240
 ggagagccga gggctaactc ccggacagcg gaacagagag agctgcccgc aaacagacgt 300
 ccagagtcct tctggccaca tctctgagcc tgcctccttc ttgcttctca gcaggcggag 360
 gagccgtcac ctcccagaat gactagtgcc gccctgcta agaaacccta ccgtaaggca 420
 ccaccagagc atcgggagct gcgttttgaa attcctggat cccggcttga gcaggaggaa 480
 cccctgactg atgcagaaag gatgaagctc ttacaggagg agaataga gcttcgccgg 540
 cgcctggcct ccgccaccag acgcactgag gccctggaac gtgagctgga aattgggcag 600
 gactgcctgg agctggagct gggccagagc cncgaggagc tggacaaatt taaggataaa 660
 gttccgcang ctgcagaaca gctacacggn tt 692

<210> 3493

<211> 739

<212> DNA

<213> Homo sapiens

<400> 3493

```
acacaatggt gagaagccct atgaatgtna tgaatgtgat aaagccttca gtgtgctttc 60
ttcccttggt caacatcaga gaatacataa tggagacaaa ccctatgagt gtcacaaatg 120
tgggaaggcc tttagccagg ggtnacacct tattcagcat canaggagtc acattgggtga 180
gaaaccctat gagtgtaatg agtgtgggaa aacctttggg cagatatcca ccctaattaa 240
gcatgagaga acacacaatg gagagaagcc ctatgagtgc agtgactgtg ggaaggcctt 300
cagccagagt gcacacctta tccaccatca aagaattcac actggagaga atccctatga 360
gtgcagtgaa tgtgggaagg ccttcaatgt ttgttcctct ctcattcagc atcacagaat 420
tcatactggt gagaaacctt atgaatgtag tgactgtggc aaggcgttca gtcagcattc 480
acaatttata caacatcaga gaattcacac tggagagaaa ccctacatgt gcaatgagtg 540
tgagaaatcc ttcantgcat gcttatccct tatccaacac aagagaattc aacttgata 600
gaaaccctat gtatgtgcc aatgtggaaa atccttctga caaagctctn accttattca 660
acatcagaga attcacagtg gggagcaacc tcatacgtgt aatcgatgtt gaaaaaacct 720
tnagtttnga gaataactc 739
```

<210> 3494

<211> 724

<212> DNA

<213> Homo sapiens

<400> 3494

```
attctgcaag gccgtggaaa caaagggagg aactgtttgt agccctcgtc cagacgcccc 60
aaacaaacaa tggagaagga aaggcaagcg acttgtccag agccactctg tcaaaagggg 120
acttgagtcc tcagggtgtg tgactccaaa gctgacaagc aggtggcatt cttcttcaga 180
```

gcagggcaag tgtaattctg gaccaatgtg tgattctgag accagaccaa ccaactgaag 240
gagccaagtt acaccctgtt taaccctgcc ttcaaaggga cgactctgta agattctctg 300
ctacttattc aagttgacac gatgcccttc acactccacc tgaggtcccg ccttcctctt 360
gccataagga gtttgattct acaaaagaaa ccaaacatca gaaatacatc cagcatggct 420
ggagagctcc gaccagccag cctgggtggc ctgcccaggt cccttgctcc agcttttgaa 480
agattctgcc aggtcaacac tggctctcta cccctgctgg gccagagtga gccagaaaag 540
tggatgctgc cccctcaagg tgctatctca gagaccagga tgggccatcc ccagttctgg 600
aaatacgagt tcggtgcctg caccggtagc ctggcttcgc tggagcagta ctcggagcan 660
ctgaaggaca tgggtggcctt cttcctgggc tgcagcttct cctggangan gccttggaga 720
aagc 724

<210> 3495

<211> 910

<212> DNA

<213> Homo sapiens

<400> 3495

gtgccacgtc ccaagtgcta cgcggaggat tagagcaggc ggtgcgctgg gggcgggagc 60
agcgcggagc ccggctcggc cacaccgatc gcccgccgcc atgggctcct cgcaaagcgt 120
cgagatcccg ggcgggggca ccgagggcta ccacgttcag cgggtacaag aaaattcccc 180
aggacacaga gctggtttgg agcctttctt tgattttatt gtttctatta atggttcaag 240
attaaataaa gacaatgaca ctcttaagga tctgctgaaa gcaaacgttg aaaagcctgt 300
aaagatgctt atctatagca gcaaaacatt ggaactgcga gagacctcag tcacaccaag 360
taacctgtgg ggcggccagg gcttattggg agtgagcatt cgtttctgca gctttgatgg 420
ggcaaatgaa aatgtttggc atgtgctgga ggtggaatca aattctcctg cagcactggc 480
aggtcttaga ccacacagtg attatataat tggagcagat acagtcatga atgagtctga 540
agatctattc agccttatcg aaacacatga agcaaaacca ttgaaactgt atgtgtacaa 600
cacagacact gataactgtc gagaagtgat tattacacca aattctgcat ggggtggaga 660
aggcagccta ngatgtggca ttggatatgg gtatttgcac cgaataccta cagcccat 720

tgaggaagga aagaaaattt ctcttncagg acaaattggct ggtacaccta ttacacctct 780
 taaagatggg ttacagang tccaacttgt cctcagttaa tccccgtnt ttgtcaccac 840
 caggaactac aggaattgaa ccnaatcttg actggacttt ctatttactt aactccccag 900
 nttgtcaata 910

<210> 3496

<211> 761

<212> DNA

<213> Homo sapiens

<400> 3496

aaaactcttc tcagaccgag gagcggtccg gacgcggagc ccggagctgg ggcgacgagg 60
 cgattgcggg ggcctgggct agctgctggc taccaatatt ctactttctg tctctatgta 120
 tgtgactacc ctggttacct catataatct ccctggaaaa ggagacatga atgtctgcaa 180
 tgatacttcc tgacaagaag ttgatacaag aaaaggaaag gagattaaca gctagtggagc 240
 agaatttcga acagcaggat ttctgtatctt ttgcttccaa ctgcacactt ccgtttccca 300
 cttttaaatc agagatacct aactcaaaa cccagacaag gcaaaaggat acctttcttg 360
 tatatctttt gagatcgaag aaacgacaat gtccaggaaa cagaaccaga aggattcatc 420
 aggattcatt ttgtatttgc agtccaatac cgtactggcc caggaggagg cttttgagaa 480
 catgaaagag aagataaatg cggtagctgc aatagttcct aataagagca acaatgaaat 540
 tatcctggtt ttgcagcact ttgataactg tgtggacaaa acagtacaag cattcatgga 600
 aggtagtgcc agtgaagtac tcaaagaatg gacagtaaca ggcaagaaaa agaacanaaa 660
 gaagaaaaac aaaccgaaa cctgccgcag aaccaagtaa cggcattcca gattccagta 720
 aatcaagttt ncattcagan gaacagtctg cgccttctc a 761

<210> 3497

<211> 893

<212> DNA

<213> Homo sapiens

<400> 3497

```

agtcaggaca agatgaaaag aaaaacatcc aaaagaagtg aaattgggtga cagaatgaga 60
ggagcaaagc ataccagtgt agtaagtgga atgtttgaat gactttgccca ggtcagagca 120
agtaatatatt ctgtatctga gtttttgttt gtgttttgat aaggctaattg aaattgcatt 180
ccaggtaggg gttaacgtca aatttccatg gctggtagct gtgcittttgg catatcacag 240
tgtttgtgtca ctactacaag gtaaagcatc tacagcggag aatgagcttg aaaatgagag 300
acctattgtg aataaatatg cccatgagag catatttaaat aagcctctat aacatgcagc 360
caaaccagac attcactcct gcagagaaat gttgccctgg agaaaaagag atatataaag 420
ataggctatc acccttcttt tgctgcagta ctaagcatag caagaaatta gaatcattta 480
cattggaaat ttgaaaattc cttttatata cacaacttta ctgtgtataa ataaaaaata 540
tttattaatg cagtgatgtc cgtcagggtg ttttaggaat ggcttctgca attagaaaaa 600
tagcttgcta gaatgtaaat gttctgttac tggtaaattg actgcacaca ttcattggcg 660
ttaaacaag tgagtagcct tttttacctg ccagcagcat ggcttgtgtg cagccactag 720
gctgagacaa taaattacca aaaattataa tgtccgagct gaaaatgctc agtacattat 780
gtggcatatt ctggatgtga tgagaaatct cattggcatt tgggacactg gcatnccana 840
agtaatccac actgctttgc aaaagcaaag tgactgggtca nattgaccgg acc 893

```

<210> 3498

<211> 827

<212> DNA

<213> Homo sapiens

<400> 3498

```

gtactacctt cggctctaggc agcggaggca gccgcgaccc caggaaaccg aggaaatgaa 60
gacgcgaagg actacccgcc ttcagcagca gcactcagag cagcctccgc tacagccgtc 120
tcctgtttacg accaggagag ggctgcggga ctctcattcc tctgaagagg atgaagcatc 180
ttcccaaact gatttaagcc aaacgatctc aaagaaaact gtcaggagca tacaagaggc 240
tccagtgagt gaagatcttg taatcaggtt acgtcgaccc cctctaagat gcccaagata 300

```

tgaagccacc agtgtccaac agaaggtcaa tttctctgaa gaaggagaaa ctgaagaaga 360
 tgatcaagac agctctcaca gcagtgtcac tactgttaag gccagatcca gggattctga 420
 tgaatctgga gataaaacca ccagatcatc tagtcaatat atagaatcat tttggcagtc 480
 atcacaaagt caaaacttca cagctcatga taagcaacgt tcagtgctaa gctcaggata 540
 tcaaaaaact ccccaggaat gggccccaca aactgcaaga ataaggacca ggatgcaaaa 600
 tgacagcatt ctgaaatcag agcttggaaa ccagtcacca tcaacctnca gccgacaagt 660
 gactggacaa ccccaaaatg catcttttgt caagaggaac cgggtggtggc tacttctctt 720
 gatagctgct cttgcctctg ggagtttttg ggtctttagt actnctgagg tagaaaccac 780
 tgntgggtcaa gagttncaga acccgatgaa tcaacttaag aataagt 827

<210> 3499

<211> 681

<212> DNA

<213> Homo sapiens

<400> 3499

agtggtccag gctggaggcg gcagcgggtg gaggcttcgc ccggctttgc agcgggggact 60
 tcggcggcgg cgcctcaggc acctcggccc ggacacgatg aggcgagtgg tacgacagag 120
 caagtttcgg catgtatttg ggcaagcggg gaaaaatgac cagtgtctatg atgacatccg 180
 ggttttctcgt gtgacctggg atagttcctt ttgtgctgtc aatcccagat ttgttgccat 240
 aatcatagag gcaagtgggg gaggagcgtt ccttgtcctc cctctgcaca agactgggtcg 300
 aattgacaaa tcttaccta cagtatgttg ccacacagga ccagtgtctg acatagactg 360
 gtgcccacat aacgatcagg tcattgccag cggttcagag gactgcacgg tcatggtatg 420
 gcagatccca taaaatggac tcaccctttc cctgactgaa cctgtggtga ttttggaagg 480
 ccactcaaag agagtcggca tcgtggcttg gcatccaacg gcccgcaatg tgcttcttag 540
 ngcaagctgt gataatgcca ttatcatctg gaatgtggga acaggggaag cccttataaa 600
 cttggacgat atgcattcag acatgattta cantgcgagc tggaaccn aatggcaggt 660
 ctgatctgcn cagcttccaa a 681

<210> 3500

<211> 774

<212> DNA

<213> Homo sapiens

<400> 3500

```

gacaccagta gcttccaggg atatttgagg caccatccct gccattgccg ggcaactcgcg 60
gcgctgctaa cggcctgggt acacgctctc cagagagcta cgggagggcg ctgggtaacc 120
tctatccgag ccgcggccgc gaggaggagg gaaaaggcga gcaaaaagga agagtgggag 180
gaggagggga agcggcgaag gaggaagagg aggaggagga agaggggagc acaaaggatc 240
caggtctccc gacgggaggt taataccaag aaccatgtgt gccgagcggc tgggccagtt 300
catgaccctg gctttgggtg tggccacctt tgaccggcg cgggggaccg acgccaccaa 360
cccacccgag ggtccccaag acaggagctc ccagcagaaa ggccgcctgt ccctgcagaa 420
tacagcggag atccagcact gtttgggtcaa cgctggcgat gtgggggtgtg gcgtgtttga 480
atgtttcgag aacaactctt gtgagattcg gggcttacat gggatttgca tgacttttct 540
gcacaacgct ggaaaatttg atgcccaggg caagtcattc atcaaagacg ccttgaaatg 600
taaggcccac gctctgcggc acangttcgg ctgcataagc cggaagtgcc cggccatcag 660
ggaaatgggt tcccaattgc acgggaatgc tacctcaagc acgactgtgc gccgnttgcc 720
cangagaaca cccgggtgat atgganatga tccatttcaa ggactttgtt gctt 774

```

<210> 3501

<211> 790

<212> DNA

<213> Homo sapiens

<400> 3501

```

ctgagtcttt cggcctgggt ggaggacgcg gctgcttcaa gtccttggct ctgatccagg 60
ccacagattc caggattcta caggcaggaa acatcttaga aatcagggtt gggcaggcag 120
gagccaggag agtagctaca atgacttcac cagtactggt ggacatacga gaagaggtga 180

```

cctgccctat ctgcctggag ctccctaacag aacccctgag catagactgt ggccacagct 240
 tctgccaagc ctgcatcaca ccaaatggca gggaatcagt gatttggtcaa gaaggggaaa 300
 gaagctgccc tgtgtgccag accagctacc agccaggga cctgcggcct aatcggcac 360
 tggccaacat agtgaggcgg ctccagagagg tagtggtggg ccctgggaag cagctgaaag 420
 cagttctttg tgcagaccat ggagaaaaac tgcagctctt ctgtcaggag gatgggaagg 480
 tcatttgctg gctttgtgag cggctctcagg agcaccgtgg tcaccacacg ttcctcgtgg 540
 aggaggttgc ccaggagtac caggagaagt ttcaggagtc tctaaagaag ctgaagaacg 600
 aggagcagga agctgagaag ctaacagctt ttatcagaga gaagaagaca tcctggaaga 660
 atcagatgga gcctgagaga tgcaggatcc agacagagtt taatcagctg cgaaatatcc 720
 tagacagagt ggaancaacc gggagctgaa aaagcttgga acanggaaga gaagaagggg 780
 ctnccaattt 790

<210> 3502

<211> 748

<212> DNA

<213> Homo sapiens

<400> 3502

tttagcagtc tgtgatgatc agcaaaaaag cacataaagt aaaaattagt tgaccatgct 60
 aaattcaatt ctggaatttt tttttatttg ggcatttcta gaacttttta catttgaaag 120
 tacatgatga gtattagtaa cgatgactta tgtataatca gaatctttat gacaatttag 180
 ttttacaagg tcaaaagaga tgagtttgct aaaccagct gtgatacctc agttggaaag 240
 ggaattcaaa ggtatgcttt gtagaacaga aaagtatagt ttttttttca tgaacttta 300
 tcattttctg tttttcctct atgtgagtca gctacaaaag tgggtctaatt ttacaacag 360
 tagaacttcc tccttttcta ctgtaatctt cccactgact ttactgcaca ggtatgaaat 420
 actagtgtat tggatcttca gtaacctttt tatttcctag atgattgaaa tataggtatt 480
 tactccattt aaaccaggtg ataagatgat gtaaatactc agggagggtt ttaacttggt 540
 acttttgctc gtttggggtg taaagtgcc a tgactgaata atcttcaatt catgattcta 600
 gagtaagttt aatttgaaa aaggggcttc acacatgggtg ggtggttgaa cattggattc 660

ttttatctta aaaaggatga aaaatgtttt gggggactga tcattttatc ttactggaat 720
atgaattggn tnatgnatct ctactggc 748

<210> 3503

<211> 717

<212> DNA

<213> Homo sapiens

<400> 3503

cccgggacgt ttggtgcgtc ttctaagggc gtgggcgagt ttacgcgggc cagttgttgc 60
tggtcgcatt ggagctgctg ctaaataatt tctgctcagc catgtcgccg gctccagatg 120
cagccccggc tcctgcgtcg atctccctgt ttgacctcag cgcggatgct ccggtctttc 180
agggcctgag cctggtgagc cacgcgcctg gggaggctct ggcccgggct ccgcgtactt 240
cctgttcagg ctcaggggag agagaaagcc cagaaagaaa gctactccag ggtcctatgg 300
atatttcaga gaagttattt tgttcaactt gtgaccagac cttccagaac caccaagaac 360
agagggaaca ttataagctt gactggcatc ggtttaacct aaagcaacgt ctcaaggaca 420
agcctctcct gtctgccctg gactttgaaa agcagagctc cacaggagat ctttccagca 480
tctcgggatc agaagactca gactcagcca gtgaggagga cttgcagaca ctggatcggg 540
agagggctac atttgagaag ttgagccgac ccccaggctt ttaccctcat cgagttcttt 600
tccagaatgc ccagggccag tttctttatg cctaccgctg tgtcctaagc cctcatcagg 660
atccccaga agangcagaa ctgctgctac agaacctgca aaagtanang tcccaga 717

<210> 3504

<211> 693

<212> DNA

<213> Homo sapiens

<400> 3504

cacatccggg agtcgctgcc ggccctacgt agcaaactac agagccagct gctgtccctg 60

gagaaggagg tggaggagta caagaacttt cggcccgacg accccacccg caaaacaaaa 120
gcccgtctgc agatggtcca gcagtttggg gtggattttg agaagaggat cgagggctca 180
ggagatcagg tggacactct ggagctctcc gggggcgccc gaatcaatcg catcttccac 240
gagcggttcc catttgagct ggtgaagatg gagtttgacg agaaggactt acgacgggag 300
atcagctatg ccattaagaa catccatgga gtcaggacgg ggctcttcac ccccgacatg 360
gcctttgaag ccattgtgaa aaaacagatt gtaaaactca aagagccgag tttgaagtgt 420
gttgatctcg tggctcaga gctggccacg gtcataaaaa agtgtgccga gaagctcagt 480
tcctaccccc ggttgcgaga ggagacagag cgaatcgta ccacttacat ccgggaacgg 540
gaggggagaa cgaaggacca gattcttctg ctgatcgaca ttgagcagtc ctacatcaac 600
acgaaccatg aggacttcat cgggtttgcc aatgcccagc agangagcac gcactgaaca 660
agaagagagc catncccaat cangtgatcc gca 693

<210> 3505

<211> 851

<212> DNA

<213> Homo sapiens

<400> 3505

gacggcgggt gcccgcgcct cagagttact gatttattct tgagattcct ctactctcgt 60
tatctgacct catggatgaa cttcaggatg ttcagctcac agagatcaaa ccacttctaa 120
atgataagga acatgatata gaaacaactc atggtgtggt ccacgtcact ataagaggct 180
taccctaaagg aaacagacca gttataactaa catatcatga cattggcctc aaccataaat 240
cctgttccaa tgcattcttt aactttgagg atatgcaaga gatcaccag cactttgctg 300
tctgtcatgt ggatgcccc aagcagcagg aaggtgcacc ctctttccca acagggtatc 360
agtacccac aatggatgag ctggctgaaa tgctgcctcc tgttcttacc cacctaagcc 420
tgaaaagcat cattggaatt ggagttggag ctggagctta catcctcagc agatttgcac 480
tcaaccatcc agagcttgtg gaaggccttg tgctcattaa tgttgaccct tgcgctaaag 540
gctggattga ctgggcagct tccaaactct ctggcctgac aaccaatgtt gtggacatta 600
ttttggctca tcactttggg caggaagagt tacaggccaa cctggacctg atccaaacct 660

acagaatgca tattgcccga gacatcaacc aagacaacct ggagctcttc ttgaattcct 720
 acaatggacc canagaccct gganaccgaa agaccccata ctggggccca aaatgggttac 780
 ccaatcaaaa acctttaag ggtctacct ttacctgggg ggtaggggga caaatttnc 840
 ctgcaatttn a 851

<210> 3506

<211> 692

<212> DNA

<213> Homo sapiens

<400> 3506

taggagaatt acacatatct caggtacttt agaagatgaa gatgaagatg aagataatga 60
 tgacattgtc atgctagaga aaaaaatacg aacatctagt atgccagagc aggcccataa 120
 agtctgtgtc aaagagataa agagactcaa aaaaatgcct cagtcaatgc cagaatatgc 180
 tctgactaga aattatttgg aacttatggt agaacttctt tggaacaaaa gtacaactga 240
 ccgcctggac attagggcag cccggattct tctggataat gaccattacg ccatggaaaa 300
 attgaagaaa agagtactgg aatacttggc tgtcagacag ctcaaaaata acctgaaggg 360
 cccaatccta tgctttgttg gccctcctgg agttggtaaa acaagtgtgg gaagatcagt 420
 ggccaagact ctaggtcgag agttccacag gattgcactt ggaggagtat gtgatcagtc 480
 tgacattcga ggacacaggc gcacctatgt tggcagcatg cctgggtcgca tcatcaacgg 540
 cttgaagact gtgggagtga acaaccant gttcctatta gatgaggttg acaaactggg 600
 aaaaagtcta cagggatgat cacagcagct ctgcttgang tgttgatcc tgaacaaaac 660
 cnttacttca cagatcatta tctaaatggn gg 692

<210> 3507

<211> 681

<212> DNA

<213> Homo sapiens

<400> 3507

ttgttaactt tgtcaaagat caggttggtg taggtttttg gctttatttc taggttctct	60
actttgtttc atttgtctat gtgtctgttt ctataccagt accatgctgt ttttgttact	120
gtactcttct agtatagttt gaagttaggt agagtgcac tccagcttt tttttttttt	180
tcttaagggt ggcttggcta tttgggtctt tttttgttc catatgaact ttaaaagttt	240
ttatttttct aattctctga agaatgtcag tagttcaatg ggaatagcat tgaatctatg	300
aattacttag ggccatagtc ccatattcat gatactgatt cttcctctcc atgagcatgg	360
aatatttctc catctgtttt gtgtccactc tgatttctct gagcagttgt ttgtggttct	420
ccttgaagag gtccttcaact ttctttctta gctgtattcc taggtatttt tttctctttg	480
tagcaaagt gaatgaaagt tcattcatga tttgtctccc tgcttgctg ttgtttgtgc	540
atgggaatgc tagctacttt tgcacattga tttatatcc tgagattttg ctactgggtgc	600
ttatcacctt aagaagcttt gggcctgana caatgangtt ttctanatgt aggatcaggt	660
catctgcaaa caaagataat t	681

<210> 3508

<211> 702

<212> DNA

<213> Homo sapiens

<400> 3508

atatggagaa gagccaagag gagatggatc aagcattagc agaaagcagc gaagaacagg	60
aagatgcact gaatatctcc tcaatgtctt tacttgcacc attggcacia acagttggtg	120
tggttaagtcc agagagttha gtgtccacac ctagactgga attgaaagac accagcagaa	180
gtgatgaaag tccaaaacca ggaaaattcc aaagaactcg tgccctcga gctgaatctg	240
gtgatagcct tggttctgaa gatcgtgatc ttctttacag cattgatgca tatagatctc	300
aaagattcaa agaaacagaa cgtccatcaa taaagcaggt gattgttcgg aaggaagatg	360
ttacttcaaa actggatgaa aaaaataatg ctttctctg tcaagttaat atcaaacaga	420
aatgcagga actcaataac gaaataaata tgcaacagac agtgatctat caagctagcc	480
aggctcttaa ctgctgtgtt gatgaataac atggaaaagg gtccttagaa gaagctgaag	540

cagaaagact tcttctaatt gcaactggga agagaacact ttigattgat gaattgaata 600
aattgaagaa cgaaggacct canaggaaga ataaggctag tccccaaagt gaatttatgc 660
catncaaagg atcagttact ttgtcagnaa atccgcttgc ct 702

<210> 3509

<211> 597

<212> DNA

<213> Homo sapiens

<400> 3509

aaactgggaa agttgctggg ccagctcctt tgtttccagt ctgagcggtg cgttcggttt 60
cccgagggtc ttctgaggca ccgcggctgc gggcttctga gttcccggct ctccgcaggg 120
aagcctcctc ttcgtacctc gttttttggc tcgtgggggg tcctcccacc gctggccgac 180
gcagccagca tgtccggggt gcgcgcagtg cggatcagca tcgaatcggc ctgcgagaag 240
caggtccatg aggtgggcct ggatggcacc gagacgtacc tgcccccgct gtccatgtcg 300
cagaatctgg cgcgtctggc ccagcggata gacttcagcc agggttcggg ctccgaggag 360
gaggaggcgg cggngaccga gggggacgcg caggactggc cgggcgccgg gtccagcgca 420
gaccaggacg acgaggaagg agtggtaaaa tttcagcctt ccctttggcc ttgggactca 480
gtgaggaaca atttgagaag tgccctgaca gagatgtgtg ttctctatga tgttctcagt 540
attgttaggg ataaaaaatt tatgactctt gatcctgnct ctcangatgc acttnc 597

<210> 3510

<211> 621

<212> DNA

<213> Homo sapiens

<400> 3510

aacaatggag ctgctgcagg atgtgagtga tgacacagaa aggagtgagt tctggaccct 60
gaggaagcca gaagctctcc ctacaaagct gagaagtatg ttccgagccc cagatctgaa 120

aaggatgctg cgagtgtgta gaggggagat gaaatggcca ggtgacatcc tcacaggatt 180
 cctcaccatt cccctcaatg tagtaaggag agagatacca gacatgagac agttggctcct 240
 attcaacatt attgactctt ttcattcatta cagagctgac agatgtccaa agctactggg 300
 ttgacgtgac cctgaatcca cacacagcta atttaaattct tgcctggct aaaaaccgga 360
 gacaagtgag gtttgtggga gctaaagtat ctggaccttc ctgtctggaa aagcattatg 420
 actgtagtgt cctgggctcc cagcacttct cctctggtaa gcattactgg gaggtagatg 480
 tggccaagaa gactgcctgg atcctanggg tatgcagcaa ttcactggga cctacattct 540
 ctttcaacca ttttgcctcaa aatcacagtg cttactccag gtatcagcct canagtggat 600
 actgngtgaa tggggntaca g 621

<210> 3511

<211> 774

<212> DNA

<213> Homo sapiens

<400> 3511

actcaggacc cagcgggggc agcgcgatga ggcgggtgac cctgttcctg aacggcagcc 60
 ccaagaacgg aaaggtggtt gctgtatatg gaactttatc tgatttgctt tctgtggcca 120
 gcagtaaact cggcataaaa gccaccagtg tgtataatgg gaaaggtgga ctgattgatg 180
 atattgcttt gatcagggat gatgatgttt tgtttgtttg tgaaggagag ccattttattg 240
 atcctcagac agattctaag cctcctgagg gattgttagg attccacaca gactggctga 300
 cattaaatgt tggagggcgg tactttacaa ctacacggag cacttttagt aataaagaac 360
 ctgacagtat gctggccctc atgtttaagg acaaaggtgt ctggggaaat aagcaagatc 420
 atagaggagc tttcttaatt gaccgaagtc ctgagtactt cgaacccatt ttgaactact 480
 tgcgtcatgg acagctcatt gtaaattgatg gcattaattt attgggtgtg ttagaagaag 540
 caagattttt tggatttgac tcattgattg aacacctaga agtggcaata aagaattctc 600
 aaccaccgga ggatcattca ccaatatccc gaaaggaatt tgtccgattt ttgctagcaa 660
 ctccaaccaa gtcagaactg cgatgccagg gtttgaactt cagtgggtgct gntctntctc 720
 gnttgacct tcgatacatt aacttcaaaa tggccattta accgttgaat cttg 774

<210> 3512

<211> 873

<212> DNA

<213> Homo sapiens

<400> 3512

```

gctgtgaggc tcggagtcgc cggaggagcc agtatctgtg tcgccgccgc ccgcggcgtc   60
cccggttttg tgctgcggcg cccaccttcg ggaggatcag tatctggcac caattctgac   120
ccagtcattt gtgatccctg gctcttctga tatgctgaag atttccaggc agtttttctg   180
gaacacctcc ccgtccagct ctaatcaagc accatataaa caagaaattg cctgggtcaaa   240
tctgtgagga ctgtattctg actgccaaag agatcaatac tgacaccaga atggcagcta   300
ctctcaagtc attaaaactt gtaagatacc gagcattttg cagtccttct gcctttgggtg   360
cagtcggaag tgtgtcatac tggaatgtga gcagcacaca gcatggggga caggaccctc   420
cagaacacat tagcctctgc cattctgcca aaaaagttaa gaacatatgt agcaccttct   480
cttctcggag aatcctgaca accagcagtg cccaccaggg tttggaattc agcaagactt   540
cttcctctaa ggccagtaca ttgcagctgg gctcaccag ggccacagga gttgatgaag   600
aggacgtaga agtgtttgat tcctttgaaa acatgcgagt tttcctacag ctaagaccag   660
aataccgtgt tcacagctat aatgcatctg agacttctca gctcctgtct gtttcagaag   720
gtgaactaat tttgcacaaa gtcagagtta atcaaaataa tcttcaggct caaagtcatt   780
ggtgattatt tngntaaagc tgagctcttt gccttgacaga gcaacattnc tgtcttgctt   840
ggcaataccc agctttgctt cttgcttttg ncc                                873

```

<210> 3513

<211> 879

<212> DNA

<213> Homo sapiens

<400> 3513

acttaaatat aagttttattc taactaatcc caatatgtgg cctcaaaaca taagtccata 60
aatgtcattt ctaagattat ttacataaa tactcaaatt tgttgtcatt tttgtagcca 120
aagctaagta gaggatgggg cctgtgaatt tagaaccatc ctagtgataa atatcaaata 180
tttagataaa aacctaaata ttaccacctc tagctttatg gagccattaa ataataacat 240
ttttctcctt ctcttcatag agtttataga caaaactaga aaattcaggt atttgggtata 300
tacttttttg ttttttttga taccatcttg gtcttgtcac ccaggctgta gtgcagtggc 360
gtgatctcgg ctcatgcaa cctccgcttc ccgggctcaa gcgattcccc tgtcccagcc 420
tcctaagtag ctgggactac aggcacatgc caccacgcct ggctaatttt ttgtattttt 480
agtagagacg gggtttcacc atgttggcca ggttggctct gatctcctga cctcatggtc 540
tgcccgcctc ggcctcccta agtgttggga ttatggctgt aagccatgtc atttcactct 600
cttaatgggtg tcttttgggtg aaaagaagtt cataatttca tgtagtccag tttatccatt 660
ttgntttcta tatgttttagc agttttttgt gtctgtttta gaaaattttt gcctattcca 720
aatcatgaa atttaagttc ttaccacctg ttgaaattat aatattaagg cagaaaagac 780
tcttcattct gatctgggtg gttcttagcc ttttgcaagt ccaggaaccc tgtgaaaatc 840
tgactagaac tntggacgcc ctgnacanaa gtgcaccct 879

<210> 3514

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3514

caccgtccgg cagactactc tcccccatgg cggacttcgc tgggccgtct tctgccggcc 60
gcaaggccgg ggctccccgc tgctctcgaa aagccgcagg tactaaacag acaagtactt 120
tgaaacaaga agatgcttct aaaaggaaag ctgaactaga agcagctgtg agaaagaaga 180
ttgaatttga gagaaaagct ctacatattg ttgaacagct tttagaggag aatattacag 240
aagagttcct aatggagtgt gggaggttca ttacacctgc tcactacagt gatgtcgtgg 300
atgaacgttc tattgtcaaa ctctgtgggt atcctttatg tcagaagaag ctgggaattg 360
taccaaaaca gaaatataaa atttctacca aaaccaataa agtctatgat attactgaaa 420

gaaagtcttt ttgcagcaat ttttggtatc aagcatctaa gttttttgaa gcacaaattc 480
 ccaaaactcc agtatgggtt cgagaagaag agaggcatcc tgattttcaa ctgctaaagg 540
 aagaacaaag tggccattct ggagaagaag tacagttatg cagtaaagcc attaaaacat 600
 cagatatcga caatcctagc cactttgaaa agcaatatga atctagttct tctagcactc 660
 acagtgatag tagcagtgc aatgagcaag actttgnttc ctccattcta ccaggaaaca 720
 gaccaaattc aacaaatatt agaccacagc tgcacaaaaa aagcataatg gaaaaagaaa 780
 gctggtcaca aagctaactt ccaaacacca aggaccaagg aacaggacag tagtagatgt 840
 cacttgacca nttaggcnaa ttgcaaattn gatagtcagg gagaaaagat gc 892

<210> 3515

<211> 786

<212> DNA

<213> Homo sapiens

<400> 3515

aatggctctc tacagatatg aaactgggtc tggagtgaga tgagctcggc tggggacgct 60
 acttgagaag gcctttcccc acagggtgac ttaaagtcc caggctggag ggtggagtga 120
 gaagtggatg cccccagggc tctgggtcac actccaggat gacttctcgg aaccagctgg 180
 tgcagaaggt gctgcaggag ctgcaggaag cagtggagtg cgaaggcctg gagggctctca 240
 taggtgcttc ctggaggcc aagcaggctc tgtcttcctt cactctcccc acctgccggg 300
 agggaggccc tggcctccag gtgctggaag tggactcggg ggccctgagc ctgtatccag 360
 aagatgctcc acggaacatg ctgccgctgg tgtgcaaggg ggagggcagc ctgctgttcg 420
 aggcggccag catgctgctg tggggtgacg caggcctcag cctggagctg cgggcccgc 480
 ccgtggtaga gatgctgctg cacagacact actacctcca gggcatgatc gactccaaag 540
 tgatgctgca ggccgtgcgc tactccctat gctctgagga gtccctgag atgaccagct 600
 tgccccccgc cacgctggag gccatcttcg atgccgacgt caaggcctnc tgtttcccca 660
 gcagcttctn caacgtgtgg cacttgatg ctctcgctc tgccttcagc ggaacatcta 720
 cttcatctac cccatccgca accttcaaga tccggnctt acttnaaccg ggtcantccg 780
 ggcccc 786

<210> 3516

<211> 849

<212> DNA

<213> Homo sapiens

<400> 3516

```

ctataatcag tataaaaacc tgttactgaa atatthttata gggcccatct cagttcagac 60
tagccacatt taagtgttcc atagccacat gtggctcatg gccatccata tttggacaat 120
gtactttaga ctattgcata tgtataactct tgtgccgtca gctgggggggt ggggtgtgtg 180
tgcgtgtata ccaaggcagt gagcatctga gctttgaacc tcaaagacca aaatgccttg 240
cccattttcc tgcttatcag ctgaggaatc tttaccacata ttgacacatg ggcttgttct 300
gacccaagtg catgcaggct tccagagcag attcagaggc ctaacttagt cctttagctt 360
tcctcccagc acagaactcc caaggttata tgaagtaggc cttgcctaga gagactgagt 420
tttcaagttg tcagttttcc caaattgtcc tcaagcatct tcctctggaa tcaccttact 480
gttttagtaaa cattcagagg acttgctaca catctgggca gtctgcattg taattcatat 540
gtgtttacac atttgtgtct tcatctgcta aagcaccttt gaaccatatt gtaattcata 600
atatctgaag caattattat gaattgtagt aattcataat attgaagcga ttcataatat 660
ctgaagcaat ccccagatac gggttaggca tggccctgct ctgagcagga tggcaaaagt 720
ggcaagtcg tgacgcaacc cttggtaccc caggctatta ctaaattggtg gtggtggntt 780
tatcttaatt aaaaatgaca tnaccaacaa tgggnccttt tcctggctgg ccaggaaaaa 840
gtttttgta 849

```

<210> 3517

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3517

catgttggac gtggtcagca caggggccgg caccacgggg ttatcgaagc agctgtcaag 60
atgctggggg ccctggtgtt gaggagaaaa gcactggcgc cacggctact cctccggctg 120
ctcaggcccc caacgctccg gggccatgga ggtgcttccg gccggaatgt gactactggg 180
agtctcgggg agccgcagtg gctgagggtta gccaccgggg ggcgccctgg aacatcgccg 240
gccttgttct ccggacgtgg ggcagccacc ggggggcgcc agggaggacg cttcgatacc 300
aaatgcctcg cggctgccac ttggggacgc cttcctggtc ccgaagaaac actcccagga 360
caggacagct ggaacggggg ccccagcagg gccggactgg gcatgtgcgc cctggccgca 420
gcgctggtgg ttcatgtcta cagcaagagt ccgtccaaca aggatgcagc cctgttggaa 480
gctgcccgtg ccaacaatat gcaagaagtc agcaggctgt tgtcagaagg tgcagatgtc 540
aatgcaaagc acagacttgg ctggacagca ctcatggtgg cagccatcaa ccgaaacaac 600
agtgtggtac aggtcctgct tgctgctggg gctgatccaa accttggaga tgatttcagc 660
agtgtttaca agacttgcca aggaacaggg aatccattct ttggagggtc tgatcaccgc 720
anaggatgac ttcaacaaca ggctgaacaa ccgggccagt ttttaanggct tgaacggcct 780
tgcactatgc tggctcttgc tgatgactac cggacttggc aaggaacttg nttgatggaa 840
gaacccaanc cccttgc 857

<210> 3518

<211> 826

<212> DNA

<213> Homo sapiens

<400> 3518

ctttcacttc agggagtctg aattagatgc gtttcttccc attcctccct ctaattacaa 60
caagcttggga cgttacatac agaacaaaca gaaggagtct ctgaaagatg aagagaaggc 120
aagtaagcta cagacttcac aatgtaagga ataatatggt ggtgagttac atttgtgatt 180
tttttttgtc tcatatccca taatatctca tatctcataa tcagttagaa agcacaatgg 240
aaaagtattc cactgccaat ggtgttagag aactgctcac aaattcaaca gaaatgcaca 300
gataccaaag cagaaaggac aataaacaag agtcttcatg gtcaaaagat tagaagctgc 360
agctttcaat gggagggaca ggttctggac cacactgcag tgcttttctg ctttctgtgc 420

tttcccactc tagagctgaa gaaggtaacg accccaaaat gtcaatatac gtagaccaaa 480
aaccagcccc aataaaagtc tgctctctct agccaaagga ctacagtagg gcagcccagc 540
aagacagaaa accttcagac aacctacccc agccaaacac taccaaaaaa agtaaagtga 600
gccatcacc c aatccacatc agtaaaaact aagtggaaag tccagacttt cacctcaaga 660
ggttgcgaca agctactcca ataccctgc tgggatagtg tcacagaagg ctaaataagg 720
agctgtaatg gtgattcccc ttcagaagtn aagagtccgt acctgctatt ttcagagaga 780
ccacatggna agcctanatt tcaacaccta cccagcatta atgagg 826

<210> 3519

<211> 894

<212> DNA

<213> Homo sapiens

<400> 3519

gtgaacgggt tgtgggacct gtcgctgtgt gggggctgtc gagcactccc cagaacgtaa 60
caaatectca ggggaactga tgggcggtcg cgcgggcact gggtcctcca caccctggag 120
agccgttttc cgttgccact cggctctggc cggggtcaca ttctgcagca tgtctgttca 180
ttcccctggg cggggccctg caccgactcc agcccagccc ctgctccctc tgcggggaac 240
gtggccccag gcagtgtggt gccattggct gtcagtgtgt gtcctggcgg ctgcattccc 300
agtccccttg gtctctgtga cagtgggcgg ggccggccct cccaggatct gacggcgcag 360
gtcctccctt tctgtgtcct gcagatggac acccgctccg ggagccagtg ttccgtcacc 420
ccagaagcca tactcaataa tgaaaagctg gtcttgccgc cccgcatctc cagagtgaac 480
ggctggctgt taccctgca ctacttccag gtggtgacct gggctgtctt cgtgggcctt 540
tcctcggeca ccttcgggat cttcattccc ttctgcctc acgcgtggaa atacattgcc 600
tacgtggtga ccggggggat cttctcgttc cacctcgtcg tccacctgat cgcgtncgtc 660
atcgaccggg ccgacttcaa tgtcagactc atgaagaact attctcagcc catgccctct 720
tngacagatc aaaacatgca cacgtgatcc agaatcagtt cttgncacct gtgcaaggtc 780
accgtgaaca agaaaaccaa aactgcatt tcctgccaat aaagtgtgtg tcccgnnttt 840
gaccaccaat tgnaaatggg atcaacaact tgcttgggaa agccggaaat tntt 894

<210> 3520

<211> 805

<212> DNA

<213> Homo sapiens

<400> 3520

```

agaaaagcgc cggacgccgg ggtgatcatg gacgcttgac aacctgcggg caggcgccgg 60
gaggccgagc cagcgactaa gaggaccgag aggtggcgtg gacagatttc aaggccagag 120
aatggcaggg gaacagaaac cctcaagtaa tctcctggag cagtttattt tactagccaa 180
aggtaccagt ggctcagccc tctctgctct cataagccag gtcttagagg ctcccggagt 240
gtatgtcttt ggagaacttc tggagctggc caacgtgcag gagccaacaa ggagagcctg 300
ccagaactga gcacagctca gcagaacaag ctgaagcatc ttaccatcgt gagcttggca 360
tcaagaatga agtgtatccc ctactccgtg ttgtgaaag acctggagat gcggaatctc 420
cgggaaactag aagaccttat cattgaggct gtctacactg acatcatcca gggcaagctg 480
gaccagegaa accagctgct ggaagtggat ttctgcattg gccgtgacat ccgaaagaag 540
gatatcaata atattgtcaa gaccctgcat gaatgggtgtg atggctgtga agcagttcta 600
ctgggcatcg agcagcaagt tctgagagcc aaccagtaca aagagaacca caaccgaact 660
cagcagcagg tagaagcaga ggttaccaac atcaagaaga cactcaaagc caccgatcc 720
tcctcggtc aggagatgga gcancagctg gctgaacggg aatgtcccc ttacgtgag 780
caaaagcagn ccaccaagaa natgt 805

```

<210> 3521

<211> 724

<212> DNA

<213> Homo sapiens

<400> 3521

```

gagggcgctt ccggcacagc ggaactccgg gtgccggtg aggttgctgg tgggcctgct 60

```

ctggtggtct tggatgaggc cccatgagcg cggcgcccct ggtgggctac agcagcagcg 120
 gctccgagga tgagtccgag gacgggatgc ggaccaggcc gggggatggg agccaccgtc 180
 gtggccagag cccccttccc aggcagagat ttccagtacc tgacagtgtg ctgaacatgt 240
 tcccgggcac cgaggagggg cctgaagatg acagcacaaa acacggggga cgggtgcgca 300
 ccttccccca cgagcgaggc aactgggcca cecacgtcta tgtaccatat gaagccaagg 360
 aggagttcct ggatctgctt gatgtgttgc tgccccatgc ccagacatat gtcccccggc 420
 tggtaaggat gaaggtgttc cacctcagcc tgtcccagag tgtggttctg cgccaccact 480
 ggatcctccc cttcgtgcag gctctgaaag cccgtatgac ctccttccac agattcttct 540
 ttactgccaa ccaggtaaag atttacacca atcaagagaa aaccaggacc tttattgggc 600
 ttgaggtcac ttcanggcatt gccagttcc tggacctggt ttcagagggtg gacagagtca 660
 tggaggaatt caacctnacc actttctacc angatccttt ttttccaccc cagcctggcc 720
 tggg 724

<210> 3522

<211> 842

<212> DNA

<213> Homo sapiens

<400> 3522

ttttgtacct gactccctga ccgatttgta ttttttatat acaactagaa ggaagtcaca 60
 agattgcctt ctacagtgtg ccatttccaa atggatctgt tgttggagga aactgggttgc 120
 tagtcaatgt tctatatatta atgaatgtgt gataaatcat cctgtaatca gtatggagta 180
 acctgttttt gtagtttgga tgaatatgtc ctgagaaatt tccatccact ttggttcagc 240
 ggacatcaag gtagtaataa taatttttcc tccacaggtc cctccactca tatggcctct 300
 ccctccccag ctagtggagg ggaagcagtc tggacttaga aaggaaatag gtggtctgtc 360
 ataggggctt tcattagagt taaacttcat agagtcaact gtttcatcat catagtgagc 420
 ccagagagcc actgcccagc agcatgctca caccacctac cctagtgtag gtaataggtc 480
 tacgctagga ccccggtgtg ggctctcagc ccatcatgag attttggtgg atttaatggc 540
 aggtaggaac ttatttatag tggattgata attgctttat aattccttgg taatgacagc 600

tcagggaagg tttcacaagg tcatgatcag gagacttgaa ttggtactgg atgtaggaat 660
 tgtttcactg ctcttaactt gctcaaactg gggcangttn caggaacttg aactaaaaat 720
 atctatttaa gcctctctct ctttctctct tcccaacttt tttctgaaag ccttgatttc 780
 tgtagacaga ctatggnttt tggcatgttg ggtcaanacn ggttctatag gaaatcttgc 840
 ac 842

<210> 3523

<211> 850

<212> DNA

<213> Homo sapiens

<400> 3523

ataatgttac cagtcagagt tggcagccac agacttatca gatctgtctg gttgatccag 60
 tgtctggaag tgtgaaaaca gtgaacgttc ccttccattt agcactgagt gataagaaga 120
 gtgaacgagc caaggatatg cacctagtga agaaactagc agccttactg aaaacaaaat 180
 ctcccaatct tgatttggtt gaaacagaaa taaaggaatt aattcttgat attaaatacc 240
 ctgcaaccaa aaaacaagct ttggaaagca ttttggcaag tgaacgttta ccattttctt 300
 gccttagaaa catcactcag actttaatgg acactttaaa aagtcaagaa cttgagtctg 360
 ttgatgaagg attgctacag ttttgtgcca ataaactaaa actgctgcaa ctctatgagt 420
 ctgtcagtca attaaattcc cttgattttc atttagacac accattctct gataatgact 480
 tggctctgtt actaaggctt gatgaaaaag aactgcttaa gctccaggca ttactagaga 540
 aatataagca agagaacacc aggacaaatg ttcgattttc tgatgataaa gatggtgtgt 600
 tgcctgtaaa aacattcttg gaatatattag aatatgaaaa ggatgtgctc aacataaaga 660
 aaataagtga agaggaatat gtggcttttag gtagtttctt tttttggaag tgtttgcatg 720
 gagaaagctc cctgaggata tgtgtcacac tttggagtcn gctggtctta acccttaact 780
 ggtggtggct ctgctnctga gggtttggct ttcaaaggaa aagggtatth ttgataacca 840
 cancaatctg 850

<210> 3524

<211> 828

<212> DNA

<213> Homo sapiens

<400> 3524

```

gagaacatct ctgttgacat tcattgtgga gaacctttac aaatagatca cttggttttt 60
gtagtccatg ggattggacc agcttgtgat ctccgctttc gaagcattgt acagtgtgtt 120
aatgattttc gcagtgtttc cttgaacttg ctacagacac attttaagaa agcccaagaa 180
aatcagcaga ttgggagggt agaatttctt ccagtcaact ggcacagtcc tttgcattct 240
actggtgtgg atgtagatct gcagcgaata accctgcccg gcattaaccg cctcaggcac 300
ttcaccaatg acacaattct ggatgtcttc ttctacaata gtcccaccta ctgtcagact 360
attgtggaca cagttgcttc tgaaatgaac cgaatataca cactttttct acagaggaac 420
cctgatttca aaggggggtg atccattgct ggtcatagtt taggttcgct tatattgttt 480
gatatacctaa caaatcagaa agattctttg ggggatattg acagtgaaaa ggattcgcta 540
aatattgtaa tggatcaagg agatacacct acactagagg aagatttgaa gaaacttcag 600
ctctctgaat tctttgatat ctttgagaag gagaaagtag ataaggaaac tctggcttta 660
tgtacagacc gagatcttca ggaaatagga attcctttag gaccaagaaa gaagatatta 720
aactatttca gcaccagaaa aaactcaatg ggtattaaga gaccagcccc gnancgtttn 780
agggcaaaca tccaagaat tgagtctgca gtacagtatc tagaatgg 828

```

<210> 3525

<211> 803

<212> DNA

<213> Homo sapiens

<400> 3525

```

tatcatatac tttatctcgg gccagactg tgggtggtga atatactcat gacagcaaca 60
ccgatatgtc tcagattggc cggtcgactg aaagcccat tgattttgta gtaactgaca 120
cggttcctgg aagtcaaagt aattctgata cacagtcagt acaaagcact atatcaagat 180

```

ttgcctgcag aatcatatgt gaacggaatc ctccctttac agcacggatt tatgctgcag 240
gatttgactc atcaaaaaac atctttcttg gggagaaggc tgccaaatgg aagacatcag 300
atggacagat ggatggcttg accactaatg gtgttcttgt gatgcatcca cgcaatgggt 360
tcacagaaga ctccaagcct ggaatatgga gagaaatata ggtgtgtgga aatgtattta 420
gcctacgtga aaccagatcg gctcagcaga gaggaaaaat ggtggaaatt gaaaccaatc 480
agttacaaga tggctcgtaa attgacctct gtgggtgcaac attgttatgg cgtactgcag 540
aaggccttcc ccacactcct accgtgaagc atttagaagc ttttaagacag gaaatcaatg 600
cagcacgacc tcagtgcctt gtagggttca acacactagc atttcctagt atgaagagga 660
aagacgttgt anatgaaaaa caaccatggg tataatctaaa ctgcggncat gtacatggct 720
atcataactg gggaaaccaa gaagaacgtg atggaaaaga tcgtgaatgt cctatgtgta 780
ngnctggtgg tccctatggt cct 803

<210> 3526

<211> 703

<212> DNA

<213> Homo sapiens

<400> 3526

ttcgaataaa agtggagcct ggaaaataat gggttttgat ttttgtgtat catcaaccaa 60
tccttctgaa caagagccta aatttccttg taaagaatgg gacccaaatt taccttcatt 120
gtgtcttcca aatcctgaat atttggctcc tgaatacata ctttctgtga gctgtgaaac 180
agccagtgat atgtattctt taggaactgt tatgtatgct gtatttaata aagggaacc 240
tatatttgaa gtcaacaagc aagatattta caagagtttc agtaggcagt tggatcagtt 300
gagtcgttta ggatctagtt cacttacaaa tatacctgag gaagttcgtg aacatgtaaa 360
gctactgtta aatgtaactc cgactgtaag accagatgca gatcaaatga caaagattcc 420
cttctttgat gatgttggtg cagtaacact gcaatatttt gataccttat tccaaagaga 480
taatcttcag aatcacagt ttttcaaagg actgctaaag gttctaccaa aactgcccac 540
gcgtgtcatt gtgcagagaa ttttgccttg tttgacttca naatttgtaa accctgcatg 600
gtaccttttg ttttgcccaa tgtcctactt attgctgagg aatgcaccan agaagaatat 660

gtcaaattaa ttcttntctga acttttgncc tgtgtttaaa cca

703

<210> 3527

<211> 761

<212> DNA

<213> Homo sapiens

<400> 3527

aagttatgct gaagaccgaa gcaagagctg gttcaggtgg cagccacagc agcctcaggg 60
acctcagcaa ctatggcctc ctgcccagac tctgataata gctgggtgct tgctggctcc 120
gagagcctgc cagtggagac actgggcccg gcatccagga tggacccaga atctgagaga 180
gccctgcagg cccctcacag cccctccaag acagatggga aagaattagc tgggaccatg 240
gatggagaag ggacgctctt ccagactgaa agccctcagt ctggcagcat tctaacagag 300
gagactgagg tcaagggcac cctggaaggt gatgtttgtg gtgtggagcc tcctggccca 360
ggagacacag tagtccaggg agacctgcag gagaccaccg tggtagacagg cctgggacca 420
gacacacagg acctggaagg ccagagccct ccacagagcc tgccttcaac ccccaaagca 480
gcttggatca gggaggaggg ccgctgctcc agcagtgcag atgacaccga cgtggacatg 540
gaggggtctgc ggagacggcg gggcccggga ggccggccca cctcaccat ggtgcccctg 600
gctgtggaga accaggctgg gggtaggggt gcangcgggg agctgggcat ntccttaaca 660
tgtgccttct tggggccctg gtctgcttgg cctgggggtc cttctcttct caggttgnct 720
ttaaagtctg agactgggcc catggaggaa ntggaaccgg n 761

<210> 3528

<211> 778

<212> DNA

<213> Homo sapiens

<400> 3528

acagtgggcc atggagtcc cgttcgatgt ggacgcgctg ttcccggagc ggatcacggt 60

gctggaccag cacctgagge cccagccccg ccgaccgga accacaacgc cggcccgtgt 120
 tgatctacag cagcaaatta tgaccattat agatgaactg ggcaaggctt ctgccaaggc 180
 ccagaatctt tccgtccta tcaactagtgc atcaaggatg cagagtaacc gccatgttgt 240
 ttatattctc aaggacagtt cagccccgacc ggctggaaaa ggagccatta ttggtttcat 300
 caaagttgga tacaagaagc tctttgtact ggatgatcgt gaggtcata atgaggtaga 360
 accactttgc atcctggact ttacatcca tgagtctgtg caacgccatg gccatgggcg 420
 agaactcttc cagtatatgt tgcagaagga gcgagtggaa ccgcaccaac tggcaattga 480
 ccgacctctt cagaagctgc tgaaattcct gaataagcac tacaatctgg agaccacagt 540
 cccacaggtg aacaactttg tgatctttga aggtctcttt gccatcaac atcggcccc 600
 tgctccctct ctgagggcaa ctgcacactc tcgtgctgct gcagtcgatc ccacggccgc 660
 tgctccagca aggaagctgc caccgaagag agcagangga gacatnaagc catactctc 720
 tagtgaccga gaatttctga aggtacttgt ggacctcctt ggnccataaac agggccct 778

<210> 3529

<211> 799

<212> DNA

<213> Homo sapiens

<400> 3529

ctctgcccgg ctccagccag cgtctgccgc cgccgtagct gccccaggct ccccgccccg 60
 ctgccgagat ggcgacgcgc tctgtcggg agaaggctca gaagctgaac gagcagcacc 120
 agctcatcct atccaagctt ctgaggggagg aggacaacaa gtactgcgcc gactgcgagg 180
 ccaaaggtcc tcgatgggct tcctggaata ttggtgtgtt tatttgcatc agatgtgctg 240
 gaattcatag aaaccttggg gttcatatat ccagggtcaa atcagtcaac ctagaccaat 300
 ggacagcaga acagatacag tgcattgaag atatgggaaa tactaaagca agactactct 360
 atgaagccaa tcttccagag aactttcgaa gaccacagac agatcaagca gtggaatttt 420
 tcatcagaga taaatatgaa aagaagaaat actacgataa aaatgccata gctattacaa 480
 ataaagaaaa ggaaaaaaaaa aaggaagaga aaaagagaga aaaggagcca gaaaagccgg 540
 caaaaccact tacagctgaa aagctgcaga agaaagatca gcaactggag cctaaaaaaaa 600

gtccagccct aaaaaagctg cggagcccac tnggatctt ttaggacttg atggccctgc 660
 tgtggcacca gtgaccaacg ggaacacaac ggtgcccccc ctgaacgatg atctggacat 720
 ctttggaccg atgatttcta atccttactg gaactggcat gcccccaact naggggacac 780
 ccttttgnac cancagctg 799

<210> 3530

<211> 834

<212> DNA

<213> Homo sapiens

<400> 3530

ttttactcat gctcagcgaa ggctgggtcc tggccccctg ggctgtgtag acccggtgtc 60
 ccaccaggct ccaggctccc accatctaca gaggggctta cagcgcccat tctggctcttg 120
 gggaacccat cacaaaatag gctttttctg ctccccgatt ctggtgtagt tctaagtaca 180
 cagtgatgtc ctctgtaggg gcgtgcctgt ggtggaacat aacgcagtta caaaagaaag 240
 ggcaggtgag gcctgggtaa ccccagccat ggaccgtcag tggctggagg gagcttcgtg 300
 tctgtgctgg agctgcagcc tgctcgccat ctggaggctc agtggagtgg ggagttgggg 360
 ttctcatacc agcagatttc cctagagcgt gattctccca tctgaggcaa tcttgccctc 420
 caggggaaat ttgcaatgt tnggaggatg ttgtcacagc tagtagcggg tgctctggga 480
 tctgggtggat agatgccaag gatgctgtca agcatactat actgcccaga acagtggccc 540
 atagcaggga cctgccctat caaaatatca ggtgtatgga ggtggagtcc caacgctaga 600
 gcagcccttc tcagctccac cctgcccggg gagggaggag gagctctggt ttcagagcaa 660
 gtgccnggat tgcctttccc caggatctgt gtcnccatc caggaagaac tgtactggcc 720
 aacctgggac cacacgtctg cagaaacctg ctcttggttg ncttgagccc caggnccttg 780
 ccctcctgtg ctttggggtn aaccattggc cactggggaa aaggcaaggg accg 834

<210> 3531

<211> 812

<212> DNA

<213> Homo sapiens

<400> 3531

```

agatctcccg ttgtgtgaga gaaacgcaag cacggagctc ccttgacctg ctgcatcctc 60
ctcggcaatt tttttttttt aagtcaaaaa gcttggattt cctgaaattg ttgaactgga 120
tgcggctggt gaagagtga cttggatcat tcattacaga ctattttcag aaccagcttc 180
ttgcaaaagg actgttcttt gtggaggaga agatcaagct gtgtgaagg gaaaatcgca 240
ttgaggttct ggctgaagtc tgggaccact tcttactga gactctccct accctgcagg 300
caatatttta tccagttcag agtggtcacg agcccacagg cccaagtga agttatttgc 360
aactggagga gctggtgaag caagtgttt ctcctttcct cggcatcagc ggggaccgta 420
gcttctcagg cccacgtac acgctggcca ggcggcactc cagggtccgg cccaaggtga 480
ctgtcctgaa ctatgcctcc ccgataaccg cagtcagccg gccactgaat gagatggtct 540
tgacccact gacagagcag gagggggaag cctacctgga gaagtgtggc agcgtgcggc 600
ggcacacggt ggccaatgcc cactcggaca tccagctgct ggccatggcc accatgatgc 660
actcgggcct gggggaggan gccagcagtg agaacaagt cctgcttctg ccaccaact 720
ttcccccggc ccaancggca gtgcttccag tgaagcccca acatnaaccg acaaccctga 780
ccggactgga aggaaggggg gccanggggc aa 812

```

<210> 3532

<211> 790

<212> DNA

<213> Homo sapiens

<400> 3532

```

acagcaagtt gtattcattc cattcatcta gaattcctag gctgcctttg tcgggcctgc 60
aggtattaat ggagaatagc agctttttat tttttatat ttattttttg agacagagtc 120
tcactctggt gccaggctg gagtgcaatg gcgcgatctc agctcactgc agcctccgcc 180
tcagagggtt aagtgattct cctgcctcag cctctggaat agctgggact acaggcacct 240
gccaccacac ccagctaact ttttgtattt ttagagaaga tggggtttca tcatgttggc 300

```

caagctggtc tcaaactcct gatctcagtg atccatctgc ctcagcctcc caaagttata 360
 agattttttt cctctggttt ttagtaaagtg ttttttttga gattgcttag caccagaatg 420
 atttgcaaag ttgaaaatag gaactccact aggaatgccg gatagaagag tgcttcacat 480
 ttgtagaggg agacaagaac taaatatcac gacgtctttc tgagcctttt ggtttgctaa 540
 cgtgccccaa attcttattc caaacgggtat aagataatta tgtgtaaagtg aataccagct 600
 ctacttagtt ttatttcata tttgtgtatc tgaatatatt aaaatatctt tttttttttt 660
 tttgatgcgg agtcttgctc tgttggtccag cctggagtgac agtggcatga tctcggntna 720
 ctgcaacctc tgcctcccag gttcaagcga ttctcctgcc tcagnctcct taagtagctt 780
 gggatttaca 790

<210> 3533

<211> 867

<212> DNA

<213> Homo sapiens

<400> 3533

gagagggcac ggggaaaagg tggctctggc cggggtggct cggtttcctg gggctatgta 60
 actgagctcg tcgacttagg ggtccttctt cgctgccctc gccgcgtgct agcagggagt 120
 ttccgctcgg gagagagact gtcctcacgc ccgctgcgcc tcctcgacgg cagagcaggc 180
 ttgctcgccc gtgggagcgt cccggccgag aagccctgag gggggagggg aggccatttt 240
 gtcccgaccg actccccgga accgggcgga gcggctggga gaggctgcgg agccgcggtc 300
 gccgccctcg gaggcactgg acgccgccac tgtcggggct tcctcaaagc tgttcgtagg 360
 tcgcccgcgc cgtctcgagc ctttttccca cgcttccccg gtcctccggc ctgagaacgc 420
 ccgagtgagg agttggccgt agtgagaggg accgatccct tggggccgcc ggccgagaga 480
 gcccagaccg ctctcccaa tggcgaagaa gacgtacgac ctgcttttca agctgctcct 540
 gatcggggat tccggagtgg ggaagacctg cgtccttttt cgtttttcgg atgatgcctt 600
 caatactacc tttatttcca ccataggaat agacttcaag atcaaaacag ttgaattaca 660
 aggaaagaag atcaagctac agatatggga tacagcaggc caggagcgat ttcacaccat 720
 cacaacctnc tactacagan gcgcaatggg tatcatgcta gtatatgaca tcaccaatgg 780

taaaagt ttt gaaaacatca gcaaattggct tanaaacata gatgaagcat ccaatgaaaa 840
ttgnaagaa tgtactagga aacaagn 867

<210> 3534

<211> 801

<212> DNA

<213> Homo sapiens

<400> 3534

agagagacgc ctctaggggc agaggccctg ggaggcaaag acccccagga gagatttacc 60
caccacagac ggaaagcgcg gctcagagtc ggacgagggg agactgtcag aggacaacgc 120
cccctaggtc tcctgggaga ccccgaaagc accccggggg cagcccgggc cgtgtccggg 180
cgagggtgac ctatccttgg ttgagagcga tggggacaca agccctgcag ggcttcctct 240
ttctctctct cctcccgtg ctgcagccgc gtggggcctc ggctgggagc ctgcacagtc 300
caggcctgtc cgaatgcttc caggtgaatg gggctgacta ccgcggccac cagaaccgca 360
ctggcccgcg cggggcgggc cgcccgtgcc tcttctggga ccagacgcag caacacagct 420
acagcagcgc cagcgacccc cagggccgtg gggggctggg cgcgcacaac ttctgccgta 480
accagacgg tgacgtgcag ccgtggtgct acgtggctga gacagaggag ggcatctact 540
ggcgctactg cgacatcccc tcctgtcaca tgccaggcta cctgggatgc tttgtggact 600
caggggcacc cccagccctc agcggcccca gcggcacctc cacgaagctc acggtccagg 660
tgtgcctacg cttcttgccg catgaagggg taccagcttg gcgggcgtgg aagcccgggt 720
acgcctgctt cttgtggctt ctgaaaagcg accttgcccc gggggaacgc cttggccccc 780
cggnaccccg nantgtgacc c 801

<210> 3535

<211> 741

<212> DNA

<213> Homo sapiens

<400> 3535

```

ctggtaaagc agcggccagg gggagccgtg agtgaggcgc tgcctctccc gctgaagcgg 60
gttccaaggc caccgtgagg gggaccatcc atccaggaga gtactgggca ggctgcaaatt 120
gtctgtgtta aaacagctct gctgggctaa gacaggacag aagcagacag caggtggatg 180
agacacaatt tcctatccag cagaacctgc agcaagctcc acagcaccct ccatgggctc 240
agtcttgctc ccgggaagat ggttaattcc atcagctcct tctggccggc agcaggaaga 300
gtggccctgt gtgtgccagg ccctgcagtc tctcctctca gctgggtgtct ccagtgaggg 360
acctgagtca tcgcacacat gagcctgtgc tcagcctgca catctcccgc ctcccaccag 420
ctgctcctca actgccaggg ccagactgtg gcaaaatctc actcctctgc cgatgctggg 480
gtttccctcg tgtctgggag gtgggtgtgt tgggtggcctg agcactgcag tgaatccatg 540
tttccctccc agcaccctgt tctgtcctcc aacttggccg acagctctgg ccagggacgc 600
agcccagctg gtgcccaccc cgcactctgt ccatttcata agagcccttg gtttcctcac 660
ttccctcaga ttttgccaag agaatggtcc tgggtgtggcc canaaaggcc ancggggtgc 720
ancctgggac tgaaaagcag a 741

```

<210> 3536

<211> 601

<212> DNA

<213> Homo sapiens

<400> 3536

```

gaggcgggcg gccccagct cgcgtccccg agtcctagcc cgcgaggcgc cagggtgcg 60
cctgggcatg gaanagggga agatggacna gaatgaatgg gggtagcacg gagagggcaa 120
taagagcctg gtgggtggccc acgcgcagtg ctgcgtcgtg ctgcggtttc tgaagtttcc 180
tccaaatang aagaagacct cggaagagat atttnaacac ctgcagaaca tagtggactt 240
tgggaaaaat gtnatgaagg agtttttggg ggagaactat gttcattatg gggaggtcgt 300
tcagctacct ttagagtttg tgaaacagct ttgttttaag atacaatctg aaagaccaga 360
gtctcgctgt gacaaggacc tggatactct cagtggttac gctatgtgcc ttccctaattt 420
aaccagactc caaacctacc gctttgcaga gcaccggccg attctgtgtg tagagattaa 480

```

nccaaaatgt gggtttattc ctttctcgag tgatgtcacg catgagatga agcataaggt 540
ctgtcgatac tgcattgcacc agnacctcaa ggnagcaact gggaagtga agcngatcag 600
c 601

<210> 3537

<211> 744

<212> DNA

<213> Homo sapiens

<400> 3537

gcatgcatca catcagaagg gctcattgcc ttcaggaacg acaatcgagt ggtagaacc 60
aaagatatct ttatcaaacc actataaaaa tggagctgac cagccctttg caactgatca 120
gagtaagccg gtggcagtcc cagaagagca gcctgttgca gaatctggac tattagcgag 180
ggagcctgaa gaaataaatg cagatgatga gatagaggat acatgtgacc acaaagagga 240
tgacctggga gctgtagaag aacaacgtag tgcataccta catctcttgt cacagcttaa 300
gctgggcatg gatttaacaa gagtggtgct tcctacattt atcctagaga agcgttcctt 360
gctggaaatg tatgcagact ttatgtctca tccagaccta tttatagcca tcactaatgg 420
agccacagct gaggacagaa tgattcgctt tgttgagtac taccttacct catttcatga 480
aggccgtaag ggagccattg ctaaaaaacc atacaatcct atcattggag aaacatttca 540
ctgttcctgg aagatgccaa aaagcgaggt agcatccagt gtttttagca gttcttcac 600
ccaggagatc acaaatcatg ctcttttata gggggagtct ttgaccagag tgggatcaga 660
ctggtacaca gtcagatttg ntgctgagca ngtttctcat catcctncag tctcaggatt 720
ttatgcagaa tgtacagaga ggaa 744

<210> 3538

<211> 839

<212> DNA

<213> Homo sapiens

<400> 3538

```
aggagacctt ggtaccagac ttgtctttgc cagtgcctct ttctgtggcc ttgggtaagt 60
ttttcccttc tctgggcctc agtttcccat ttgcaaaata aaagtgttta agactaggtt 120
ccaagatttt ccaattctaa tgctgagagg atacagagga aaacagaaag aatgctggct 180
gaggaaccag gagacttgcc ttcttgtccc agctctgcca ctgacctgac ctctttgggc 240
ctctgcttcc tcctctataa aataagataa agcaacagaa gcctccagcg actaagttaa 300
actttcctgg ggtcacaagg tttaacaagt gctgaatagg atttctacag actggttcct 360
tcacccggct gcccgccgaa gtaagcgggc cttactgccc taattctcaa taggacccca 420
aagaggacgc ttctttgctc ctgaagggat ggcacccttt ggattcgcg taacagcaaa 480
tggggctctc actcctacca tctcagtgc agtttaaagc gcaccctacc gcaggaaagt 540
gcccataatt gcacacacgc ggcagagggc agggctgaaa aggggcccta gggatgcagg 600
ggcgcgcctt naccgggga cccgcattt tacaatatta gcttcaccga ggcgcacgga 660
accgcangcg aacaactgac cttcggcttc agcgggcccc aagcccgggg tgggaacgcg 720
cgaccaagta gcggcatgga cttcgagcct ggccccttcg gggntaaaac tttccagaca 780
ttaanggttc cggacgacag aagtgcgaacc cgccgcgttg cccntgggac acttgaact 839
```

<210> 3539

<211> 760

<212> DNA

<213> Homo sapiens

<400> 3539

```
taggaggaag agagagatgg aaccatgtaa ccaccacgac caagaggcca gtaaccacca 60
gagctccagc aaatacttta ggaaatgatt ttgacttggc tgatgccctg gatgatcgaa 120
atgatcgaga tgatggccgc aggaaaccaa ttgctggagg aggaggtttt tcagacaagg 180
atcttgaaga catagtaggg ggtggagaat acaaacctga caagggtaaa ggtgatggcc 240
ggtacggcag caatgacgac cctggatctg gcatggtggc agagcctggc accattgccg 300
gggtggccag cgccctggcc atggccctca tcggtgccgt ctccagctac atctcctacc 360
agcagaagaa gttctgcttc agcattcagc aggttctcaa cgcagactac gtgaaggag 420
```

agaacctgga agccgtggta tgtgaggaa cccaagtga atactccacg ttgcacacgc 480
 agtctgcaga gccgncgccg ncgccgaacc agcccggatc tgaggggccct gtccagctgc 540
 aggcattgcac aatggtgcca ccgcttgta cccggctccc cccacccctt catttgacc 600
 cgcagctgct gtgctgctct gtgccatcgg ctcttggtg gtctgagttt cccggatgag 660
 ctctgggtgt ttgtgagttt ggntttctctg gccttgccca agcgtgctga gacttggtgc 720
 cgaaattcaa gagccanctt ttgatagaaa gncagcacca 760

<210> 3540

<211> 813

<212> DNA

<213> Homo sapiens

<400> 3540

gcgaggcgt accgggtgcc ccggctctgg agcataaaca agagcgggga cgggatgagg 60
 cggcggttga tcccagggtg gcgagtggcg gcgaccgagg cggcgagcgg ggcccggcgc 120
 cgaccctgag tgcagcctga cccgccctcg cgcgcgcgcc ctccccggcc gggcccactc 180
 gccgcgcgcc cagccatgaa cctggcgagc cagagcgggg aggcggcgcc cggccagctg 240
 ctcttcgcca acttcaacca ggacaacacg tccctagctg ttggtagtaa gtccggttat 300
 aaatttttct ccctttcttc tgtggataag ctggaacaga tctatgaatg caccgatacg 360
 gaagatgtgt gcattgtaga gagattgttc tccagcagcc tagtggccat cgtgagcctt 420
 aaagcaccaa ggaagctaaa ggtttgccac tttaagaagg gaactgagat ctgcaactac 480
 agctactcca acacgattct ggctgtgaag ctcaacaggc agaggctgat agtatgcctg 540
 gaggagtccc tgtacatcca caacattcgg gacatgaagg tgctgcatac gatcaggagg 600
 acgcctccaa accctgcagg cctgtgtgcg ctgtcaatca acaacgacaa ctgctacttg 660
 gcgtaccag ggagcgcgac catcgagag gtgcaggtct tcgataccat taatttgaga 720
 gcttgcaaac atgattccng ntcacgaaca gtcctttacg ggactggcct ttgacgcaag 780
 tgggaactaa actttgccac ggnttccgga gaa 813

<210> 3541

<211> 828

<212> DNA

<213> Homo sapiens

<400> 3541

```

agtgggtacc gggacgccgt gaggcggaag ctgtgtatgg cgggaggctg tggcgggtccc   60
ttggtgggga agctgttgct gttgctagac gacgggaact agctctcgtc acttctcag   120
cccgccgtct gccactcct ctagccggaa cctggggggcc cggagccggg gtaggcacag   180
agttgtcctc ggaggtccag gacagcggcc agcccggcgg cgggagtcag ggccacgcca   240
cctgcaggga agaaccgag tcgaagcggg aagatggctg cagacaagcc tgcagatcag   300
ggagcagaga aacatgaagg cacaggtcag tcctctggga tcactgatca agagaaggag   360
ttatccacca atgctttcca agctttcaca tctggaaatt atgatgcctg tctacaacac   420
cttgcccgtc tacaagatat aaacaaagat gattataaaa taattttgaa tacagcagta   480
gctgagtttt ttaaaagtaa ccaaacaaca acagataatt tgagacaaac acttaaccag   540
ctgaagaatc aggtccactc agctgttgaa gaaatggatg gattagatga tgttgaaaac   600
agcatgttgt actataatca agcagtcatt ctttatcatc tgcggcagta tacanaacca   660
tatcagttgg tgaaaaactt tatcagttca tagagccttt tgaagaaaaa tttgcccaag   720
cagtgtgttt ttgtcttgga gacctggata tattaaccta ccaagctgag aaacttgat   780
cttcttgntg gcctaanaaa aaatgatttc ncaggggtaa ccattacc               828

```

<210> 3542

<211> 789

<212> DNA

<213> Homo sapiens

<400> 3542

```

tattccttca atatcccttt ggaagagagg agtgacatgt tcacatggga cccctatgga   60
ccatgggaag gctgtaccaa aatgtgtcaa ggtcttcagc gaagaaacat aacttgcata   120
cataagagtg atcatagtgt tgtgtctgat aaagaatgtg accacttgcc acttccatca   180

```

tttgttactc aaagttgcaa tacagactgt gaactaaggt ggcatgttat tggcaaaagt 240
 gaatgttcat cccaatgtgg tcaaggatat agaaccttgg acatccattg catgaagtat 300
 tccattcagc aaggacagac tggtcaagtt gatgaccact actgtggtga ccagcttaaa 360
 cctcctaccc aagaactatg ccatggtaac tgtgtcttca caagatggca ttattcagaa 420
 tggctctcagt gttccaggag ttgtggagga ggggaaaggt ctcgagaatc ttattgtatg 480
 aataactttg gccatcgtct tgctgacaat gaatgccaag aactgtcccg agtgacgaga 540
 gagaattgca atgaattttc ctgtcccagt tgggctgcta gtgaatggag cgagtgcctt 600
 gttacatgtg gtaaaggaac aaagcagcgg caggtatggt gtcagctgaa ttagatcac 660
 ttgantgatg gcttctgtaa ttcaagtcca aacctgaatc tctgagtcca tgtgaacttn 720
 atcatgtgct ttctggcaag taggaccatg ggggnccttg cacaaccaca tgtggacctt 780
 gggtnntcaa 789

<210> 3543

<211> 852

<212> DNA

<213> Homo sapiens

<400> 3543

ccatctcttc aaggtccac tagtctaaaa cgcctggttc tagatggaaa cctgttgaac 60
 aatcatgggt taggtgacaa agttttcttc aacctagtta atttgacaga gctgtccctg 120
 gtgcggaatt ccctgactgc tgcaccagta aaccttcag gcacaaacct gaggaagctt 180
 tatcttcaag ataaccacat caatcgggtg ccccaaatg ctttttctta tctaaggcag 240
 ctctatcgac tggatatgtc caataataac ctaagtaatt tacctcaggg tatctttgat 300
 gatttggaca atataacaca actgattctt cgcaacaatc cccggtattg cgggtgcaag 360
 atgaaatggg tacgtgactg gttacaatca ctacctgtga aggtcaacgt gcgtgggctc 420
 atgtgccaag ccccgaaaaa ggttcgtggg atggctatta aggatctcaa tgcagaactg 480
 tttgattgta aggacagtgg gattgtaagc accattcaga taaccactgc aatacccaac 540
 acagtgtatc ctgccaagg acagtggcca gctccagtga ccaaacagcc agatattaag 600
 aacccaagc tcactaagga tcaccaaacc acaggaggct cctcaagaaa aacaattaca 660

attactgtga agtctgtcac ctctgatacc attcatatct cttggaaact tgctctacct 720
atgactgctt tgagactcan ctggcttaaa ctgggccata ccccggcatt tggatctata 780
cagaaacaat tgtacanggg acgcatgagt cttggtcaca gccctggagc tgatcaccta 840
taaggatgct gg 852

<210> 3544

<211> 738

<212> DNA

<213> Homo sapiens

<400> 3544

aaaaaaagta cccctgcagc cggccggaga ggctagagcc cgacggggcc cggctccggc 60
ggcagccgcg cctctcgctt gcttccctcg gccgggccgt cctcggcggc agtgtcagga 120
gcactccgct ggtccaggcg gcaacatgtc catgctttta gtgatgtccc tgcctctaata 180
ccagaagcca tggaggagat aaggtagccc ccctcgatcg gatggggaag cccagttcaa 240
tggataactaa attcaaggat gacttatttc ggaagtacgt gcagttccat gagagcaaag 300
tggataccac caccagcagg cagcggcctg gcagcgatga gtgcctgcgg gtggcagcct 360
caaccctgct cagcctgcac aaggtggatc ctttttatcg attccggctg atccagttct 420
acgaggtggg ggagagctcc ttgcgctcgc tcagctcctc tagcctgcgg gctctgcacg 480
gcgccttcag catgctggag acggtgggca tcaacctctt cctctacccg tggaagaagg 540
aattcagaag catcaagacc tacacgggcc cttttgttta ttatgtcaag tcgacattac 600
tggaagagga catccgagcc atcctgagct gcatgggcta cacacctgag ctgggcactg 660
gatacaaagc tcanangagc tcgtggagac ctttcaggtg aagatgggtct nctttgagct 720
ctttctgggc aaaagtca 738

<210> 3545

<211> 695

<212> DNA

<213> Homo sapiens

<400> 3545

```
gtgcacacat tgtgttctta aactgagacg tggctctgca ggtctcctgg gctcattcca 60
tgggtgtggta tgtttattcc actgtccaga gctattctct gatggatttg agcaacagca 120
gtggagataa atgtcctaga gtcaccaggt cgcttggaga agtcatttaa gctgcctcgg 180
gttttttgta cttaaaatgt ggatattatt tctccaccta aatcactgag tttacagagt 240
aataatgtgt tgctctggac attgacagct ttctagagcc agtaatgggc tcttctgaag 300
gatgctgaat tagaagtga cctattcata ggatcaaaag ccacttgctt tgaaatatgt 360
agagtccctc agaattgacg gtgctagaaa tatccaagt ttaaataacc ttttaaagc 420
aacaaaagct acttttttct taccacttaa tagaagaacc tgtccctaga ggcgacttca 480
ttgctatgga tctggagtct ctgaactctt aataggatgc agcctcacat acataatgtc 540
acccatttta tgttgatgaa aacattacaa gttttcatca ttgggtatgt gttgatgttc 600
acagacagta cttgggccca ttaggttttc gcgtctgggc ttanagcatg tgnattcatc 660
tcaacgtgaa tacctnacca gtcttatgaa tagga 695
```

<210> 3546

<211> 879

<212> DNA

<213> Homo sapiens

<400> 3546

```
gcttccggct ccggcgtggg gtttgatgtc tacggagtgg cttttgctta gcgtcttgaa 60
ggggggaaaa aaatcctcta agctggatgat ttcacgttct ttgacaaact tcaatagcaa 120
caggcaacga taccacttta agaaaattcc aaggaaaaga cctcatttta aaattccac 180
ctctggctcc caaagattgg tttgcaaaact tcgacaaaat actcttctcc actcgtatt 240
gatggagtct cgctctgtca cccaggctgg agtatagtgg tgtgatcttg gctcactgca 300
acctctgcct cccagggttca agcgattctc ctgcctcagc ctctcgagta gctggaatta 360
caggctctggc agaaggaaca gtatcaactg actgagtagg tctcattggc agttgtgatt 420
cagagaccta gaaagctgaa cccacggctg gcaagaagag gatggtttgt gggacctggg 480
```

ctgatgtctg atgaaatfff aagccccagc tatagctact acaaagaaaa gtggctgatg 540
 ataagcatgt aactcaaaaa gacaatgtat ataaaaatat gcaagaatca caggaaaccc 600
 acatatccaa ccacctagat gaagttgttg ctgctgttag catcactcat agaaagaagt 660
 tccaaaacaa gctgcttcag acagcactat tccagcctnc tcgagagaaa ctncacctct 720
 gtgaagagaa agcaaagtcc tattncaaca gtcatgagta caaacaggcc gtccatgagc 780
 ttgtgccttg cgtaacactg acaagaatff gctatggaga cttacattgg gaactacnga 840
 aggcncatgt aatctgggct caaggttacc tccactgaa 879

<210> 3547

<211> 685

<212> DNA

<213> Homo sapiens

<400> 3547

gaagttctag aaaatgttaa ttggggggagc tgtggctggc agagaaggaa aaaggaagct 60
 gaagggcact tgggctcata atgggtctctc caaccctgat cctgtccttt atggacattt 120
 ggcagcgctg ctgccttgag gtgccttgca atgctttatc tttttgttaa agccacctct 180
 gttgcttcag ccagcttgag cggttttctg ttacttgcta gtggttggga aggcttagcc 240
 gacgaaggga aaatgagtca ggtcctgaag gatgagcaag ttacgggagt gggccgcatg 300
 gtgagggagt ggacttcctg atgggggttaa gggcgcctga acacctggga ggcaagttga 360
 ggccaagacc tgggggtgatg gagaggcagg gtaggctacc cagtgagtag gaggccgaag 420
 gaaccacagc agggctccag atctcctggc ccagaggggc tggtagggga agcccagaag 480
 acactcatcc ctaaggggag cctgagactg aggaactctc atgccctgcg tcgggctcgt 540
 gggcgaaggg ccttcccagg gactgcacca tggcctgtcc ccagccttac ccaggggcct 600
 tcctctcang ttctgaagga cccaggggtc acagctgtgt ggggtgctcc actgaacact 660
 tncctcaaac tccttcangc ttgga 685

<210> 3548

<211> 762

<212> DNA

<213> Homo sapiens

<400> 3548

```

acttccccct cccccctccc ttctctctc ctcccttttc cctcctttcc ttgtctcctt 60
cttcttcttc ttctttcccc cagccccctt cctccctgtc cccctctctc cctgctccac 120
gcagtgtccc actgcccgcc tttctctgca gctggctggt atggaggggg ctgccctgag 180
gagccccaga gtaagctgga agggagggga cagaggctgg tgtcatttgt ctctgtagcc 240
ctaggaccgg tctgaaccgg ttgctgggag aggaggaggg ggcggccaga tcgattgcag 300
caaagaggga agagagcggc agaggagct cgcggggctt gcgtgctgga acacgccgat 360
ggcctgtgcc accgcctcac caccgtgtgc cccacgtcca agccgcagac tcagggcctg 420
gccaaggatg cctgggagat ccctcgggag tcgctgcggc tggaggtcaa gctgggccag 480
ggctgctttg gcgaggtgtg gatggggacc tggaacggta ccaccagggt ggccatcaaa 540
accctgaagc ctggcacgat gtctcagagg ctttctgcag gagggccang tcatgaagaa 600
gctgangcat gagaagctgg tgcagttgna tgctgtggtt tcagaggagc ccatttacat 660
cgtcacggag tacatgagca aaggggagtt tgctggactt tctcaagggg gaaacaggcn 720
aagtacctgc gggttgccn aactggtggg acatgggttg nt 762

```

<210> 3549

<211> 794

<212> DNA

<213> Homo sapiens

<400> 3549

```

gtttctccac cagcaacatg gccgccgct gagaggagag ccgggccgcc gccgtctctg 60
cagccccgcg gtaactgggc cgttgccgcc gtccgcgctc ggcccccgcg gagagatcga 120
tgtgtacttg gccaaagatc tggcggaana gctgtatcta tttcagtacc ctgtgcgtcc 180
agcctcgatg acctacgatg acattccgca cctctcagcc aagatcaagc ccaagcagca 240
gaaggtagag cttgagatgg ccacgcacac cctgaacccc aactattgcc gcagcaaagg 300

```

ggagcagatt gcgctgaacg tggacggggc ctgcgccgac gagaccagca cgtattcctc 360
 gaagctgatg gacaagcaga ctttctgctc ttcccagacc accagtaaca catcccgtta 420
 tgccgctgca ctctacaggc aaggtgagct ccacctgaca cctttacatg gcatcctgca 480
 gctgcggccc agcttctcct acctggataa ggctgacgcc aagcaccggg agagggaggc 540
 ggccaacgag gcaggggact cttcacagga tgaggcggaa gacgatgtta agcagatcac 600
 ggtgcggtct cccggccgga gtcagagcag gcccgnccgc gccgtgtgca gtcctatgag 660
 ttctgcaga agaagcacgc agaggagccc tgggtccacc tgcattacta tggcctgang 720
 gacagtcgct tctgagcatg aaccgtnagt acctgnttgt gccccggct tcaagccggg 780
 gttgggaaaa acac 794

<210> 3550

<211> 847

<212> DNA

<213> Homo sapiens

<400> 3550

gtgggctggg tgggtttcct aatctggttt cgtctgcttg gttcatctgt gtgcgatggc 60
 tccggactcg gatcccttcc ctgaagggcc gctcttaaag ctgctaccct tagacgctag 120
 agaccggggc acccagcgct gccgcctggg cccggccgcc ctccacgccc tgggcgcgcg 180
 cttgggctcg gcagtgaaga tctcgctacc cgacggcggc tcctgcctct gactgcctg 240
 gcctcggcgg gacggagcgg acggctttgt gcagctggac ccgctgtgcg cgagccccgg 300
 ggcggcggtc ggggcgtcga gatcccgag gagtctcagc ctgaatcgcc tcctcctagt 360
 gccctgtccg cccctgcggc gcgtcgccgt gtggccggtg ttgcgagagc gggcaggcgc 420
 gcccggtgcc cggaatacag ccgcggtgct ggaggcggca caggagctgc tgagaaaccg 480
 accgatctcc ctgggccacg tggtggtcgc tccgccaggc gtcctggcc tgggtggctgc 540
 cttgcacatc gtcggcggga cgcccagtc cgatcccgtt gggctggtca cccctcgtac 600
 ccgcgtcagc cttggcgggg agcctccgtc ggaagcccag ccgcagcccg aggtgcccct 660
 tgggaggtct ttcggaggcn ggccgactcg ctgcggggag cttcttncgg cttccgcttc 720
 cgttaccggt ggccgcctg acccgcgctt gggcttaacc ggtggccttc gccgggggtg 780

cttncctggc cggggggccc cccccggaat tgggcnaaga accccaantt ggtgcaaggg 840
ccctggc 847

<210> 3551
<211> 821
<212> DNA
<213> Homo sapiens

<400> 3551
aaccctgtca ttgctgaact gtcccaagca ataaacagtg gtacattggt atcaaaaccg 60
tccccaccct taccaccta gagaggcatt ccatcaacct cagtaccac cttggagtct 120
gctgctgcca tcaccacaaa aacaccaagt gatgaaagag agaagagcac gtgttctatg 180
ggctcggaac tactaccaat gatctcacct cgctctccgt cccccccact gcctactcat 240
atacctccag agcctccag caccctcca ttccctgcta agacttttca agttgtgcca 300
gaaattgagt ttccaccatc cttagatcta caccaggaga ttccccagca ggaagatcag 360
aaaaaggaag tccccagag gatactggac cagaactttg gggagcccca tataccctct 420
aggctgcctc cactcccact gcatattcga atccagcagg ccctcaccag cccacttccc 480
atgactccta ttctggaggg ttctcacaga gctcattcgt tgctttttga aaacagtgac 540
agcttttctg aggacagcag tacgccgggt cggaccaggt ctcttcccat cactattgaa 600
atgctaaaag ttccagacga tgaagaagaa gaggagcaaa cctgtccatc cacattcagt 660
gaagaaatga cacctacctc agtcattcct aaattaccac agtgtctacg ggaggaagaa 720
gagaaggaga gcgacttctg attcagaagg tccattcag taccgagatg aagaagatga 780
agatgaaagc ttctcanagt ctctngccaa cnaaatgaag a 821

<210> 3552
<211> 756
<212> DNA
<213> Homo sapiens

<400> 3552

```

caaatatgtt tcagagctct ggagtccagc accaccctcc agaaccacaaa gcccaaacag 60
aagggaatga agattcagag ggcaaagagc aaccttggga aatggtgatg gataagaaac 120
actttaagct gtggcggcgc ccaattacag gcaccacct ttaccagtac cgagtttttg 180
gaacctacac agatgtgaca cctcggcagt tcttcaatgt tcagctggac acagagtata 240
gaaaaaaatg ggatgccctg gtaatcaagc tggaggtttg tgtgatgcag aacactaatc 300
ctgcccctcc atttcttttag tatccaatgt actcacggga ttatgtttat gttcggcggt 360
atagtgtgga tcaggaaaac aacatgatgg tgttggtgtc gcgtgctgtg gagcatccga 420
gtgtgccaga gtctccagaa ttcgtcaggg tcagatcata tgaatcccaa atggttatcc 480
gtccccacaa gtcatttgat gagaatggct ttgactactt actaacatac agtgacaatc 540
cccaaacggt gtttcctcgc tactgtgtta gttggatggt ttccagtggc atgccagatt 600
tcctggagaa gctgcacatg gccactctga aagccaagaa tatggagatt aaagtaaagg 660
actacatctc agctaacctc tggaaatgag tagtgaagcc aaggncacca gccagtcctt 720
ttgagccgaa agaaacnang gccagctttg gccctg 756

```

<210> 3553

<211> 647

<212> DNA

<213> Homo sapiens

<400> 3553

```

agacactggc cgcgggccac catctggacg cgatcccccg ctagggcctc cctggtctgg 60
gccaaagtgt gtggccacct tcgcgcgggc tgcgccctcc ttctcttccc tgccctcctc 120
ccccggggcc cgcgcccgct gcctccagca cgcgcgctcg caggctcggc aagcgaagag 180
gagcggctcg cccagggcg cccctcgccc agcctgccgg ccaggcgagc gcgacgagag 240
tctccccgca ccccttctc tcccgggggc cgagagggtt gggctccgcc ccggcgccgc 300
agctccccgac tccccgccgc tcgggctgcc gccgctgccc cgcgccccggc gctcggggca 360
gccggggggc caggcggaga gcgcagggcg gggagaggcg tggggagcag agcggcgctg 420
aggggagggc agaggaggag agagcctggc agcggaggag cagaggcggg cgccgcaccg 480

```

cccgnaagct cgctcgctcg ggagagtcgc gggcggncgc ttgggcgcac ttgccgggtc 540
accttgtccc ggaggagaaa tggcttcctg aggcaagtgt aacctacatt ccagccacca 600
agctgacgcc anncaggag agagtacat ggatggnata ttgaaca 647

<210> 3554

<211> 717

<212> DNA

<213> Homo sapiens

<400> 3554

aagatggcta tcaagagtat cgcttccgc ctccggggtt cccgtcgttt tctgagcggc 60
ttcgtggttg gggctgtagt gggcgctgcg ggagctgggc tcgcggccct gcagttcttc 120
cggagtcagg gcgctgaggg agcgttgaca gggaagcagc cggatggatc tgcagaaaag 180
gctgtcttgg aacaatttgg attcccttta actggaacag aggcaaggtg ttacactaat 240
cacgctttgt cttatgatca ggcaaagcgg gtgcctagat gggttcttga acatatttcc 300
aaaagcaaga taatgggtga tgcagacaga aagcattgta aatttaagcc tgatcccaat 360
atccctccaa cttcagtg cttcaatgaa gattatgttg gaagtgggtg gtcacgagga 420
cacatggctc cagcaggaaa taacaaattt tcaagtaaag ccatggctga aaccttttac 480
ctttctaaca ttgtgcctca ggattttgat aataattctg gatattggaa cagaatagaa 540
atgtactgtc gagagctgac agaaaggttt gaagatgttt ggggtggtatc tgggcctttg 600
accttacctc agactagagg cgatggaaag aaaatagtta gttaccaggt gattggcgag 660
gacaacgtgg cagtcccctn acacctttat aaggnaatcc tggcccgc an aagctca 717

<210> 3555

<211> 714

<212> DNA

<213> Homo sapiens

<400> 3555

aaacaaaaac aactttaaat gctttagca gaccgggtca tctcatgtca gaaaccttta 60
 atccaggcct aaatttgcac agacctgaca ttcagctgcc ttgcagttgc ttcctcccat 120
 gagccaaggt ggtgtcagag ggcaactgga tgactcgcag taccacagca ctgggacaga 180
 cagaagccac acctttcttt tgggtttttg ccaagcctcc tccatctccc atcagtgtctg 240
 tgggctggct gcaagcctcg aaacagttct cctggaaggg aggtttttgc tttacccccg 300
 ccagcacttc cgcacacaat catagagaac ctctctgtct tctgttgcc tacagcttgt 360
 ctgtttctca agcagaggca ggaagagcta gtcttagcat ttatatatta ataggaagtt 420
 gactcccagc atgtaaaagt gatccacgca gccggagtgt atgccgggag ctaagtggtc 480
 tatgggtgaa catatcccac ctgtcttctt gagtccttgg tcccaatctt ctcatttggt 540
 cctctcggtt taaatTTTTT ccccccaact cttttgatgt aagaagttca gtttgtcttc 600
 gggagtgggt ctctgcaagg gctctgggat gactcttggc ttccaagagg acaggctatt 660
 aggttcttgg acttttttct gtgctaccgn tgctgttgg tggaagtaca ngac 714

<210> 3556

<211> 870

<212> DNA

<213> Homo sapiens

<400> 3556

caacccttaa catttgggta atgtgggtcca cctccctcc caggcaacaa actgcttgag 60
 gctggcagct cctgtttctg aagactgatg cagcccttga aggtcaacct gctggagcaa 120
 aaaaacttgg gacttgaatt ttagctcca tttacatgga tccattgccc cagctactgg 180
 agtatagcct acaatgttta tttcagtcaa tattccttta tctgggtgtt ctgtacaatg 240
 tttattacag tcaatattcc ttcacttga tggtctgtga agatagccat gtttatgggg 300
 gtcttagttt tcaaactctg gcaactctgt gaaaaatagg agcaaactag agagccctgg 360
 agattggtag tagggaaggg aggatagcag gaagtttgaa aaattagcag ccccggggcc 420
 taaaggaatc agctgtcatc attttcatca ttattatttt ggtaggatg gcttgaaaat 480
 cagaacgtat cttggtttac gtaattgagg tcttaaagaa ctaagaacag ttaaatagtc 540
 acaactacca cctctgact tacataatca ttgggtgtgg cttcgttttg ctttagagt 600

cacatctttc agtaaattca cagagatcaa gagggacgtg caacatacag cttaaaggct 660
 gntatgcttc anggttgctg aagaagatga aacatcagcc tgccatcgtc tagaagagac 720
 attggcagtt aaaaattagc acctncagtg tagtcgcctg gcactgcca tcatgctgan 780
 ggagcagatt cttccaagg cagcttcagc taggaatttg taagccagga cttgtgacac 840
 atttgcctcc tggactgacc tttttaactn 870

<210> 3557

<211> 873

<212> DNA

<213> Homo sapiens

<400> 3557

atnttgtttg acatcctgtc taatcaaaaa gcatttgaat ttatcaaagt gccctggacc 60
 tcttgctgtt gctaattggag ttgtgaagca gctacatttt caggaaaagc agatgcctga 120
 agagccaaag ctgactttgg atgagtcgta tgacctgtt gttgaaaatg aagaagtcct 180
 aactttgcaa gaaactctgg aagcacttag cctctctgaa tatttttagca cttttgaaaa 240
 ggaaaagatt gatattggagt ccctgcttat gtgtacagnt gatgacctga aggaaatggg 300
 gataccctt ggaccagaa agaagatagc taactttgta gaacataaag cagccaaact 360
 gaaaaaagca gcgtcagaaa agaaggcagt ggcgccact tctacaaaag gacaagagca 420
 aagtgccag aagactaaag acatggcttc cctccctca gaatccaatg agccaaagag 480
 gaaacttcca gttggtgctt gcgtgtcttc tgtgtgtgtg aattatgaat cttttgaagt 540
 tggcgccgga caggtttctg ttgcttaca ctcattanat tttgaaccag agatattctt 600
 tgccttgggg tctccaattg ctatgtttct cactattcga ggagttgata ggatagatga 660
 gaattacagc cttnctacct gtaaagggtt cttcaatatt tatcatccgc ttgatccagt 720
 ggcatataga ttagacctat gatttggtcca gatttgacc taaaagctgt ctcatccca 780
 tcacaaaggc ngaaaagact tcttttagaa ttgaaagaga gtctctctcg natgggatct 840
 gatttgaagc agggtttatt acctctttca aaa 873

<210> 3558

<211> 806

<212> DNA

<213> Homo sapiens

<400> 3558

```

gatgctgaaa ttcagaagtc agcacttcag attgtcatca atttgtgtgtg tggcccagat   60
aaccgaatat ccagtattgg taaattttatc tctggtactc ctcggagaaa gctgcctcag   120
aaccctaaaa gcagtgagca caccctggcc aagatgtgga atgtggttca gtccaacaac   180
ggcatcaagg tgctcctgtc cttactgtcc attaagatgc ccatcacaga tgcagaccaa   240
atccggggccc tggcctgcaa agccctagtg ggcctgtctc gcagtagcac tgtccggcag   300
atcatcagta aactgcccct tttcagcagc tgccagatcc agcagctgat gaaggagcct   360
gtgctgcagg acaagcgcag tgaccatgtc aagttctgca agtatgctgc tgaactcatt   420
gaacgggtgt caggaaaacc acttctcatt ggcactgatg tttccctagc acgactgcag   480
aaagcagatg ttgttgccca gtcaaggatc tccttccttg agaaagagct gcttttgttg   540
atacgaacc atcttatttc taaagggtt ggagaaacag caaccgtgct gacaaaagag   600
gctgacctgc ccatgactgc tgcctcccat tcttctgcct ttaccccagt cactgctgct   660
gcttctcctg tctctctacc ccgaaccct cgtatcgcta atggcattgc aactcgtctg   720
ggcagccatg ctgctgtggg tgcctctgcg ctttctgccc ctactgntca tncettaagcc   780
acggnccccc cagggtccgc tagctt                                     806

```

<210> 3559

<211> 839

<212> DNA

<213> Homo sapiens

<400> 3559

```

gtttttacct aagcaagcct gggcaatggc gggcgctcct cccccagcct cgttgccgcc   60
ttgcagtttg atctcagact gctgtgctag caatcagcga gattccgtgg gcgtaggacc   120
ctctgagcca ggaactgaag ttaaaagatg aagaatgtga gaggcattca aaagtgcgag   180

```

atcaacttgg acaggaattg gaagaactca cagctagtct atttgaggaa gctcataaaa 240
 tggtagaga agcaaatac aagcaggcaa cagcagaaaa acagctaaaa gaagcacaag 300
 gaaaaattga tgtacttcaa gctgaagtag ctgcattgaa gacacttgta ttgtccagtt 360
 ctccaacatc acctacgcag gagcctttgc cagggtggaaa gacacctttt aaaaaggggc 420
 atacaagaaa caaaagcaca agcagtgcta tgagtggcag tcatcaggac ctcagtgatga 480
 tacagccaat tgtaaaagac tgcaaagagg ctgacttata cttgtataat gaattccgat 540
 tgtggaagga tgagcccaca atggacagga cgtgtccttt cttagacaaa atctaccagg 600
 aagatatctt tccatgttta acattctcaa aaagttagtt ggcttcagct gttctggang 660
 ctgtggaaaa caatactcta agcattgaac cagtgggatt acaacctata cggtttgtga 720
 aagcttctgc agttgaatgc cgaggacca aaaaaatgtg ctctactggg ccanagtaag 780
 tcctgtaaac ncnggaattt aaattaaggg gactcaagcc actattaata aaattcttc 839

<210> 3560

<211> 777

<212> DNA

<213> Homo sapiens

<400> 3560

ataacatgat tcatcaggtg ccaattaaat ccctccctca agaatggctt tgggtgtgaaa 60
 cgtgggtgtga tgacgcctct aagaaaaggg caaaaacat tgatttgtgt aataatccga 120
 tgaccaaaga gccgaaactg gaagcagctg tgcggattgt cccggagtgg caggactacg 180
 accaagagat caaacagcta cagatccgct ttcagaagga gaaagaaacg ggagcactgt 240
 acaaagagaa gacaaaagaa ccaagccgag aaggtcctca gaaacgtgaa gaattatgat 300
 ctctggagaa ggacaggaaa tcacccatt tgaaaaacag tttttataat aaatgctagt 360
 tttttctgat ctgtctatac aactgctgat aagccggctg ggcaggagtg ccacaccttt 420
 tgattctgag catttgattc tgacttctgt actctggtgg ccactggatc tttgggatta 480
 aagctctgtt ggatttgtac ctacagaggaa gaccaagtgg ctgacccctt ggactctgta 540
 aagagcattc ttctagtcag aggggtggaat ggcagcagca actggaagaa aatgagtttt 600
 ttggtgcca caccgaagag cacacacatg ctgcactgtc tcggaaagca nggccagcta 660

gagccacccat gttctttctta cctcagttta cctgcggncct gcgctgcact gcanatgccc 720
accctgccct gggctctggcc ggcggaagct ctgtccaagg tccacacacc ttncagg 777

<210> 3561

<211> 743

<212> DNA

<213> Homo sapiens

<400> 3561

ccccgcccct ggagccggcg gcgcagggcg cagcttcccg ccgccagagc gggccagcct 60
gctgcgtgcg tgcgtgtgta cgactctgcg tgcgtgcgtg cgtgcgtgcg tgccgtcagc 120
tcgccgggca ccgcggcctc gccctcgccc tccgcccctg cgccctgcacc gcgtagaccg 180
aaaaaaaa agcgcgccc a cccggtagag gacccccgcc cgtgccccga ccggtccccg 240
cctttttgta aaacttaaag cgggcgcagc attaacgctt cccgccccgg tgacctctca 300
ggggctctcc cgccaaaggt gctccgccgc taaggaacat ggccaaggtg gagcaggtcc 360
tgagcctcga gccgcagcac gagctcaa at tccgaggtcc cttcaccgat gttgtcacca 420
ccaacctaaa gcttggcaac ccgacagacc gaaatgtgtg ttttaaggtg aagactacag 480
caccacgtag gtactgtgtg aggcccaaca gcggaatcat cgatgcaggg gcctcaatta 540
atgtatctgt gatgttacag cttttcgatt atgatcccaa tgagaaaagt aaacacaagt 600
ttatggttca gtctatgttt gctccaactg acacttcaga tatggaagca gtatggaagg 660
aggcaaaacc ggaagacctt atggattcaa aacttanatg tgtgtttgaa ttgccagcan 720
agaatgatna accacatgat gta 743

<210> 3562

<211> 814

<212> DNA

<213> Homo sapiens

<400> 3562

gcaaaaatat gaaccaagag aaattcaata agagcctttc atagaggagt agaaaggatt 60
 attacagaat ccaatgaatg ccaagaaaaat gtacagcaaa tgtgccactt gaatatctag 120
 tatgaagctg gtaatgaaga aattgccatt tctgaagcag atatgaaata tgatctgctt 180
 aattgttaag gcaactgacc tttcaaaaagt gcagagtctt attaaaagag gggaggggta 240
 gaagcagaat aatagtcata tgtctaacct gccccagtta actcctcttg ttaaattata 300
 agccagttat cttttttaga tagtatTTTT gtcacttgga taatcacagg aaatatataa 360
 gaaaagagct tggactaact tgagaagttg gacatggaaa gcaagaccaa gttccagttg 420
 ggTTtaattt tccctcttgg ttattttcgg acacaaaggg aatgcttaaa actgagttta 480
 gtaataaaaa gcataaatct cttctgtaac tttataaac cacagggagg tttcaatcca 540
 tgcattttcc ttcattactc aagattataa atctgttttt aaaatacatc taaacaaca 600
 gttgagaaac aaaagtttgg catgttgtca gatccctta agaggaagag gttaagctgt 660
 aaagtagtgg ccctgttttg atgccagaac attcatatgc tgttggtctg gatttctttt 720
 aaatgcatgt attttaaatc tggTTaaatc ttanaatctt ggctatatct tanaattctg 780
 gctcttggta ccatnttcc agaagtctat attg 814

<210> 3563

<211> 887

<212> DNA

<213> Homo sapiens

<400> 3563

cagaagcagt agtccaaacc tagtataggg aaaggataaa aataagtcac cttcaccaag 60
 agatgccaat gattaccaa caacagacaa ttgccaaata ctggtttctc tttcccctga 120
 aaatggcttt tgttctcaaa tgataagaga gctaatacat ttagctaata ttctagctct 180
 ctttattatg gaacagatct tgatagatgg ttttaatttc tcctaaagag aaataatcag 240
 ttgagaattt gagaatgggt tgtaattatc gtcacccat tgggatgggt cattgtttta 300
 atatggcatt tttccccctt cagctgcagg ttcctgagat ttggtgcctg tgagctctga 360
 ttgtaggaat gcatgtgaca gtcccagtc tatggtaatg acttaggagg aatgcagata 420
 aaagtacctt gtaagataaa tataaatTgg agttaggaat ttcatagaacc tcactatgac 480

caaaattaat tttttgattc agtttgtctg tctgtctgtc cttccccctct cttctttttt 540
 cagggtgagg tgctgtgttt cttatttcat acgagataaa acagagagaa gttctctctt 600
 ctccagcttg tccatttccc cacttgaaga aaacttttga tatatatgcc ttactgagta 660
 catgccccct ttaatgntaa tatgacttgg agtaatttct gaggtttact gacaaacata 720
 aaaatccctt taattgtagt gtagttggc tataaaccat attttttcat gatgtggata 780
 tttcttcta tttctttggc ttcatttaat ttgggtgggtg gngaacttta cttgctggat 840
 tttcttttat ttttctgga tgaagtttgg gcttggaatg aanagng 887

<210> 3564

<211> 796

<212> DNA

<213> Homo sapiens

<400> 3564

tcgggttggt gtcattggcag ctgcggggag ccgcaagagg cgcctggcgg agctgacggt 60
 ggacgagttc ctagcttcgg gctttgactc cgagtccgaa tccgaatccg aaaattctcc 120
 acaagcggag acacgggaag cacgcgaggc tgcccggagt ccggataagc cgggcggggag 180
 cccctcggcc agccggcgta aaggccgtgc ctctgagcac aaagaccagc tctctcggct 240
 gaaggacaga gaccccgagt tctacaagtt cctgcaggag aatgaccaga gcctgctaaa 300
 cttcagcgac tcggacagct ctgaggagga agaggggccc ttccactccc tgccagatgt 360
 gcttgaggaa gccagtgagg aggaggatgg agcggaggaa ggagaagatg gggacagagt 420
 ccccagaggg ctgaagggga agaagaattc tgttcctgtg accgtcgcca tggttgagag 480
 atggaagcag gcagcaaagc aacgcctcac tccaaagctg ttccatgaag tggtacaggc 540
 gttccgagca gctgtggcca ccacccgagg ggaccaggaa agtgctgagg ccaacaaatt 600
 ccaggtcacg gacagtgtg cattcaatgc tctggttacc ttctgcatca gagacctcat 660
 tggcttgtct ncagaagctg ctgtttggaa aggtggcaaa ggatacagca ggatcttgca 720
 acccgtccag caaccgntt ttgggggaag cttctgtgga cattaaggct tacctggctt 780
 cggncataca ggntgg 796

<210> 3565

<211> 834

<212> DNA

<213> Homo sapiens

<400> 3565

```

cttatatgtg aaaagtctat aggtacttgt aatagacctt tgggcgctgg ggaggccttg   60
agacgagtaa tggagtgttt ggcactctgga atactacttc ctgggggtcc tggctctcat  120
gaccttgtg agcgagaccc aacagatgct ctgagctata tgaccatcca gcaaaaagaa  180
gatattaccc acagtgcaca gcatgcactc agactatcag cctttggcca gatttacaaa  240
gtgctggaga tggacccct tccatctagt aagccttttc agaagtattc ctggtcagtt  300
actgataaag aagggtgctg gtcttcagct ctaaagaggc catttgaaga tggattaggg  360
gatgataaag accccaacaa gaagatgaaa cgaaacttaa ggaaaattct ggatagtaaa  420
gcaatagacc ttatgaatgc actaatgagg ctaaatacaga tcaggcctgg gcttcagtat  480
aagctcctat ctgagctggt ccccgttcat gcccagctct tcacaatgtc tgtagatgtg  540
gatggcacia catatgaagc ctgaggacca tccaagaaaa cagcaaaact tcacgtagcg  600
gtgaagggtat tgcaggcaat gggatatcca acaggctttg atgcagatat tgaatgtatg  660
agttccgatg aaaaatcaga taatgaaagt aaaaatgaaa cagtgtcttc aaactcaagc  720
aataatactg gaaattctac actgaaacct ncagtacctt agaggtaaga ctcanggcc  780
taccctnaca gcaagtggca aaaaccctgt atggagctaa tgaaaaaaga agag      834

```

<210> 3566

<211> 772

<212> DNA

<213> Homo sapiens

<400> 3566

```

gggccgaggc gcgggagagg cggtggacac cgagaagccc gccggcggct tgcaattccc   60
tcaccggcg cgcgcccttc gcagagggaa ggagcaagag ggcccctacc tcacgtgctg  120

```

cgggtggggt cggcgcttgt cgcgtgtggc gcgcagtggg gcgggcggcg ggaggggggt 180
 ggcagtggag ggagcgagag gtgcaggggt gactttgttg gcagcaggac tagctggaga 240
 gctagacctg gaagcgcac cggggaggac ttgcggggca gaggaggcg tgggcgtgtc 300
 tggatatgga tgcagtggaa aggagggggc cctcctgagt agatctgttg gtgattcctt 360
 cgaggacgcc tcgtcttccc gtctgccctt ttatttgtca gcgagggagt ccccatggtc 420
 tctgttcaag ttctggaaac tttctctttg ggtgggctta atcacctgct actaaatcgt 480
 agaactgccc agggcccttt ctaatatgg tcacaaacgt gaggagtatg tcagaaaaca 540
 gaaaaccgct gctgggcttt gtaagcaaac tcactagtgg gactgcactt gggaactcan 600
 gcaagactna ctgccccctg tgcttggggc ttttcaaagc ccccaggctc ttgccttggt 660
 tgcatacagt ttgcaccag tgtctggagc aactggagcc cttctngtag tggacattcc 720
 anggggaaaa ttttgacaca aacttnttaa ggggtcaaat atttcaggaa ct 772

<210> 3567

<211> 875

<212> DNA

<213> Homo sapiens

<400> 3567

gtgcgcgctc cctcgggtgcg gcgggctgcg tgcgcgagtg ggagggtggca ggcctgcgac 60
 tccggccttg tccgcgcccc ctctcggcgc gacgtctcca gccatgaacc ggtttggtac 120
 ccggttggtg ggagccacgg cgacttcttc gccgccgccg aaggcccgca gcaatgaaaa 180
 cctcgacaaa atagatatgt ctttggatga tatcatcaag ttgaatcgaa aggaaggga 240
 gaagcagaat tttccaagac taaatagaag actcctccag caaagtgggt cccagcaatt 300
 caggatgaga gtgcgatggg gaatccaaca gaattctggt tttggtgaaga ctagtctgaa 360
 tcatagagga agagtaatgc ctggaaagag acgtcctaata ggagttatca ctggccttgc 420
 agctaggaaa acgactggaa ttcgaaaagg aattagtcct atgaatcgtc cacctctaag 480
 tgacaagaat atagaacaat attttccagt gttaaaaagg aaggcaaacc ttctgagaca 540
 aatgaaggg cagaggaaac cagtagcagt tctcaagaga cctagccagc taagcagaaa 600
 aaataacatt ccagctaatt ttaccaggag tggaataaa ttaaatcatc agaaagatac 660

tcgtcaggca acttttcttt tcagaagaag cctgaaagtg cangcccagt tgaatacaga 720
 acaactgcta gacgatgtag taaaaagaga ctcgtcaatg gcggactttc accacaaatg 780
 gagggatttt gactggatct attgacaatc ctggaacaat gcaatgcccc tactnagaaa 840
 ccacgattaa ctctactggg gnaccttcat tttna 875

<210> 3568

<211> 772

<212> DNA

<213> Homo sapiens

<400> 3568

aattaaatgc atatgttctc caagaaccac ctaaaggaga aacctacacc tacgactggc 60
 agctgattac tcacccatga gactacagtg gagaaatgga agggaaacat tcccagatcc 120
 tcaaactatc gaagtcact ccaggcctgt atgaattcaa agtgattgta gaggggtcaaa 180
 atgcccattg ggaaggctat gtgaacgtga cagtcaagcc agagccccgt aagaatcggc 240
 ccccatattg tattgtgtca cctcagttcc aggagatctc ttgccaacc acttctacag 300
 tcattgatgg cagtcaaagc actgatgatg ataaaatcgt tcagtacat tggaagaac 360
 ttaaggggcc tctaagagaa gagaagattt ctgaagatac agccatatta aaactaagta 420
 aactcgtccc tgggaactac actttcagct tgactgtagt agactctgat ggagctacca 480
 actctactac tgcaaacctg acagtgaaca aagctgtgga ttacccccct gtggccaacg 540
 caggcccca ccaagtgate accctgcccc aaaactccat caccctcttt gggaaccaga 600
 gcaactgatg tcatggcatc accagctatg agtggtcact cagcccaagc agcaaaggga 660
 aagtgggtga gatgcanggt gttagaacac caaccttaca gctctctgcg atgcaagaag 720
 gagacttcct taccagctna cagtgactga ccaatnggac agcaggccac tg 772

<210> 3569

<211> 873

<212> DNA

<213> Homo sapiens

<400> 3569

```

aagaaaaagc cgggtgaggt ggtgtgtacc tgtagtcaca ggtacttggg aggctgaggt   60
gggaggatca cttgagccca ggagatagag gctgcagtga gctgtgatcg taccactgca  120
ctccagcctg ggcgacaaaa tgagaccctg tctcaaaaga aagccctctc cttagctgag  180
cagaggaagg gaaggagtgt ggctatgaga atatgattta tgccattttc tgtttttaaa  240
tctagaagat cttctaagca caaatacagc tacaatgaaa tattttacag acaaaatggt  300
aatagaccat attctttgaa ttaaatttgt ttttaatttt ctctacacat ttttttttc  360
ctggagtctc ttagctctaa atatatcaat cagatttata ttttttttac ctgattcaga  420
tgtcttacat ttttatatta aatgaacctt aagcatgatt cttttggtaa gccagtatga  480
atgccagtgg ttggggggcg gnggggggag tcagttgaca taagatttag tcctaataag  540
gactctgtat tcacttgatt attctgacct ttcctaaggg agggagggtg attagatacc  600
actggaggcc cattctgtat tcctaatacca gtctcagcac ttattcata caaaataatc  660
aaaataggtt ttctacacca aatgctccca gcagtgtctt ataattnatt tgcacacctg  720
tatgtggggg gccatgttan ccaactaaatc tgaactttta ccctgcttcc atcatggatt  780
tttttgggta acccggaaac aagtcaccaat gcttnctggg cctgggttcc tcatttgcac  840
caggagggta attnccgacc taccttttga aaa                                873

```

<210> 3570

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3570

```

aatcccaaag gggcccagat gcagccgac tccctcccca gagttcagca ggtaccccag   60
caggtgcagc cgggtgcagc cgtgtatcct gccaggtgc agtacgtgga agggggagac  120
gccgtctaca ccaatggaac catacgaaca gcctacacct acaaccccga gcctcagatg  180
tacgccccca gcagcacggc ttcttacttc gaggccccag gcggtgcca ggtgaccgtg  240
gcagcctcgt ccccgccagc ggtccctcc cacagcatgg tgggcatcac catggatgtc  300

```

ggggggagcc ccatcgtctc cagcgcggga gcctatctca tccacggggg gatggacagc 360
 accagacact ccctggccca cacctcccgc tcatcgcccg ccacgctcca gtggctgttg 420
 gataattatg aaacagcgga aggtgtgagt ctccccagaa gttctcttta caaccactac 480
 cttcggcact gccaggagca caagctagac ccagtgaacg cgcctcctt cgggaaactg 540
 atccgttctg tgtttatggg gctgagaacg cggcggctgg gcaccagggg caactcgaag 600
 taccattact atgggattcg tctgaagccg gactcaccac tgaaccggct gcaggaggac 660
 acgcagtaca tggccatgcg gcagcagccc atgcaccaga agcccangta ccggnacagc 720
 cagaagacgg acagnct 737

<210> 3571

<211> 840

<212> DNA

<213> Homo sapiens

<400> 3571

ggatttggga gttgagcacc ttcgtcgcca ttggctttcc tccccagct ccagcctctc 60
 tcatcttggg aatctgcgtc agaagtcact cgcagtcccg tcagcccaga agaagacgta 120
 aagcaggcta ccagcaattt tgagaacttg caaaaacagc ttgcaaggaa aatgaagctt 180
 cctattttca tagcagatgc attcacagca agagcatttc gtgggaatcc tgctgctgtt 240
 tgcctcctag aaaatgaatt ggatgaagac atgcatcaga aaattgcaag ggagatgaac 300
 ctctctgaaa ctgcttttat ccgaaaactg caccgcagac acaactttgc acaaagtctc 360
 tgctttggac tgagatgggt tacaccagcg agtgaggtcc cactctgttg ccatgccacc 420
 ctggcttctg cagctgtgct gtttcacaaa ataaaaaaca tgaatagcac gctcacgttt 480
 gtcactctga gtggagaact aagggccaga cgagcagagg acggcatcgt cctggacttg 540
 cctctttatc cagcccaccc ccaggacttc catgaagtag aggacttgat aaagactgcc 600
 ataggcaaca cactggtcca ggacatctgt tattctccag atacccaaaa gtcctcgtc 660
 cgcctcagtg acgtttacaa cangtcgttt ctggagaacc tgaagtgaca cngagaatct 720
 gctgcagttg aaaacacagg gaaggtgaaa ggcttattct tacccttaaa gganacctgg 780
 tgggcaaccc aacatttgct ttactcaaan attttcccgg gggtgggngc tgaaaccctg 840

<210> 3572

<211> 514

<212> DNA

<213> Homo sapiens

<400> 3572

```
acattgacca ggtggccaga cacctgaggt gaggcccagg ggcacctgca tgtgtatagg 60
caggggtgga gacaaggatg gatcttgagg tgctgggatt gtgagacagg aggtgggtag 120
tatacttggc ggggaggccc atgtgcgtaa ggctgagagg tggaaagagc tggctgctat 180
agagctagtg aggttgcttt caggaagcag ccaagtacag atgccacggc cgagcatgat 240
ggtgcatgcc tgtaatccca gcaatttggg aggccgaggc aagagggtca tttgggcccc 300
ggaattcgaa accagcttgg ccaacatggg aaaaccccat ctctaccaa acaaatacaa 360
aaattagctg ggcgtgggtg tgcacgcctg taccanttac ttgggaggct gaggtgagaa 420
gggattgatt gagccctgga aggtaaggct acagtgagtc atgatgggtg gcanancaag 480
accctgtttc tttctttctt tctttctttc tttt                                     514
```

<210> 3573

<211> 849

<212> DNA

<213> Homo sapiens

<400> 3573

```
agagcttggg atcgctttct gctattcaac gtcctccacc tctgcccccc tctcccccca 60
gccggtgaca ggctgttgcc ctgtgatctg caggtcctgg gacgtgcaca gacagctaag 120
atgccaggac attccagaag gtgggaaagg cacctgagta atttgactct cctgcctgga 180
cccagcgtac agatgggatt gtgcttcatt gctggaccca gcatttaggc ccactaccta 240
tgagattgca tgctcctgcc tgggctgtgc ccacagtac cttgtgacat atatctgcat 300
ccatgaccta aaagatgtga cacttcttgc ctgcaacctg ccctgcacag gaaagattgc 360
```

gacttctccc tggaagcaga caccagggat cgtcactccc gtggatgac aaaggcgcct 420
 gtaatttcag ctactccggg ggctgaggca ggagaatcgc ttgaactcgg gaagcagaag 480
 ttgcagttag ccaaggtcgc accactgcac tccagcccag gcgacattgt gagactccat 540
 ctcaaaaaaa aagaaaaaaa gtgtactaac aagaccagc acacagagga gacttttacc 600
 attgtatgaa caccatcaa acagtacaca tcatcattgt gagttctgaa tctcacacat 660
 agaggaagtc aaaggtggaa aacttgactc tcatatttgg atccagtcca caggtgtgat 720
 tttagcgcac acttctgccc ancacctgag taatgtgatt cttcanaatt ggcccgggccc 780
 acaaatagga ttgtgccaca ctgctggacc cantgcctaa atgatgtaac tctattcttt 840
 ttgncttgg 849

<210> 3574

<211> 725

<212> DNA

<213> Homo sapiens

<400> 3574

gtgtggaagt gacgtgccc ccgctgccc aaatgtcggc gccagagagg aggtagagag 60
 cccccacata ccaactgtatt ccccgccacc atggatgacg tccccgcccc aaccctgca 120
 ccagcaccgc ccgccgtgc cgccccagg gtcccgtttc actgcagtga atgtggcaag 180
 agcttccgct accgctcaga cctgcggcgc cactttgccc ggcacacagc gctcaagccc 240
 cacgcatgtc cgcgctgcgg caagggtttc aagcacagct tcaacctagc caaccacctg 300
 cgctcgcaca ccggggagcg gccctaccgc tgctctgcct gcccgaagg gttccgcgac 360
 tccaccggcc tgctgcacca ccaggtcgtc cacactggtg agaaacccta ctgctgcctg 420
 gtctgcgagc tccgcttctc ctcacgtcc agcctgggcc gccacctnag gcgccagcac 480
 cgtgggggttc tcccctctcc cctgcagccc ggccctggcc tgcccgcctt gagtgcgccc 540
 tgctccgtct gctgcaatgt ggggccctgc tcggtgtgcg ggggctcang ggccggcggc 600
 ggagagggcc ccgagggggc aggcgcgggt ctgggcagct gggggctggc agaagcggca 660
 gctgcggccg cggctcttgc cccattttgc gtgcngcgcc tgcgcgcggn gcttgacacg 720
 ggcn 725

<210> 3575

<211> 710

<212> DNA

<213> Homo sapiens

<400> 3575

```

agtccgctcc ggcagcgcgc tctgcccggc ttcctcagtc tcctcgccgg gagcgtccgg 60
gagcagctcc gaggccgcgg cgaaaccagg tggagtcga ggttcggagg agtatcagag 120
gttaggggaa ggccggagaa tgggctggga ggctgcgttt cggagcttag ggttctgtcc 180
ctgcgatcgc cgcgtctccc tcccttggtg ggcgcggtc ccgggaagcg gctcgtctcg 240
tctccccca caggccgggt tcccgttctg gaccttcgcc ctcggaacac agtgctgttg 300
gccgggactc cttcccaggg tggacggctc cctgttctta ttcctggctc tgccagaact 360
gtaggaagtg ctcagtacac tttagggcat gcatggcact ccctgggaga cagtgttcta 420
gggccagagg aaagatcttc cctgaaggca aacgcccgcg gagcccacaa gtccgggccg 480
cactgaacaa gtcaggatgt tgccatcggc aattctgcag aaggcagtaa cccatctgag 540
agaaagagcc gctgtcataa ggtctcttgc ttgagctgct gggttgagaa tggagctgga 600
agagggaact gatctcggag ctccttgggg atcttgggta tgtttgacct tttactttc 660
anggagcang gattgatca aagtcattgc atntagagta ccgggggaac 710

```

<210> 3576

<211> 814

<212> DNA

<213> Homo sapiens

<400> 3576

```

ctataaaatc tcagtaccag tttccacccc ctctcattgc acccgcggcc attcgggacg 60
gggagctgat ctgcaatggg atccctgagg aatcacagat gcacctttg aactctgagc 120
acttagccac ccaagcagag cagcaagagt ggctctgtag tgttgttgcg ctccagtgca 180

```

gcatattgaa acatttatct gctaagcaga tgccttcgca ttgggactct gaacagacag 240
 agaaggctga tattaagcct gttattgtga ctgacagctc agtcaccacc tccctgcaaa 300
 cagctgacaa gacacctaca ccttcccact accccttgtc ctgccccctca gggattagca 360
 cccagaattc cctgagctgc tctccacccc accagtcccc agccctagag gacatcggct 420
 gcagttcttg tgcggaaaaa tccaagaaaa ccccttgtagg gactgccaat gggccagtga 480
 acacagaggt gaaagctaata ggccccacacc tctacagcag ccctactgat tccacggacc 540
 cccggcgact tccaggcgct aacaccccac taccaggcct ctcacaccgg caaggctggc 600
 cccggccccct cagccacca gcggctgggg gccttcagaa ccacaccgtc ggcatcattg 660
 tgaagacaga gaatgccact ggccccagtn ttgccccaga ggagttggtt ctgtccaagc 720
 tgcccttcat tccagctttg ngccagatng agacaccagc cttgaaagaa gatgtcatcc 780
 agatggactc gtgcaatnag gcctggttac ccaa 814

<210> 3577

<211> 743

<212> DNA

<213> Homo sapiens

<400> 3577

actattggcc agttccgttc aacgaagtgg ttgctttttt tagttccggc aatgagttgc 60
 gccggggcgg cggcggtcc ccgcctttgg cggctgcgcc cgggggcccg gcggtccctc 120
 tcagcttatg gaagaagaac cagtgtcaga tttcgcagtt caggaatgac tttagacaat 180
 atcagtcggg cagctgtgga tcgaataatc cgggtggatc atgcaggcga atatggagca 240
 aaccgcatct atgccgggca gatggctgtc ctgggtcgga ccagcgtcgg gccagtcatt 300
 cagaaaatgt gggatcaaga aaaggaccat ttgaaaaagt tcaatgagtt gatggttatg 360
 ttcagggtcc ggccaacagt tctgatgccc ttgtggaacg tgctggggtt tgcactgggg 420
 gcggggaccg ccttgctcgg gaaggaaggt gccatggcct gcaccgtggc ggtggaagag 480
 agcatagcac atcactacaa caaccagatc aggacgtga tggaggagga ccctgaaaaa 540
 tacgaggaac ttcttcagct gataaagaaa tttcgggatg aagagcttga gcacatgac 600
 atangcctcg accatgatgc agaattggct ccagcctatg ccgtcctgaa gagcattatc 660

cangccggat gcanagtggc gatataatga tcagaaagat tattaaagtg tgtccagttt 720
 tgcctgncta taaaagatga tag 743

<210> 3578

<211> 812

<212> DNA

<213> Homo sapiens

<400> 3578

gcggagagag gcgagcaccg ggaaggggag tgtggggccg ctggaatggg tgaatttaag 60
 gtccatcgag tacgtttctt taattatgtt ccatcaggaa tccgctgtgt ggcttacaat 120
 aaccagtcaa acagattggc tgtttcacga acagatggca ctgtggaaat ttataacttg 180
 tcagcaaact actttcagga gaaatttttc ccaggtcatg agtctcgggc tacagaagct 240
 ttgtgctggg cagaaggaca gcgactcttt agtctggggc tcaatggcga gattatggag 300
 tatgatttac aggcgttaaa catcaagtat gctatggatg cctttggagg acctatttgg 360
 agcatggctg ccagccccag tggctctcaa cttttggttg gttgtgaaga tggatctgtg 420
 aaactatttc aaattacccc agacaaaatc cagtttgaaa gaaattttga tcggcagaaa 480
 agtcgcaccc tgagtctcag ctggcatccc tctggtaccc acattgcagc tggttccata 540
 gactacatta gtgtgtttga tgtcaaatca ggcagcgtg ttcataagat gattgtggac 600
 aggcagtata tgggcgtgtc taagcgggaag tgcacgtgtt ggggtgtcgc cttcttgtcc 660
 gatggcacta tcataagtgt ggactctgct gggaagggtgc agttctggga ctcaaccac 720
 tgggacgctt gtgaagaagc catctcatcg cttatgcttg acgtgcaagt ccattgctgn 780
 ancttgaccc aagaaagacn agttttcctg gg 812

<210> 3579

<211> 725

<212> DNA

<213> Homo sapiens

<400> 3579

aaatattaca ctctggctga aatacgcaga aatggaaatg aagaatcgcc aagtcaacca	60
tgctcgaaat atctgggacc gggccataac aacgctgcct cgagttaatc agttctggta	120
caagtacacg tacatggagg aaatgttggg aaacgttgcc ggtgcccggc aggtgtttga	180
gcgctggatg gagtggcagc ctgaggagca agcctggcac tcctacatca actttgagct	240
gagatacaaa gaggtggatc gggcccgcac catttatgag cgatttgtcc tcgtgcaccc	300
tgatgttaag aactggatca agtatgccc ctttgaagaa aaacatgctt atttgccc	360
tgcacggaaa gtgtatgaga gagctgtgga attctttgga gatgaacata tggatgagca	420
cctttatgtt gcctttgcca agtttgaaga aaatcagaaa gagtttgaaa gggtagcagt	480
gatttacaag tatgccctgg acagaatttc aaaacaagat gcccaagaac tctttaaaaa	540
ttataccatc tttgagaaga agtttgggtga taggcggggt attgaagata tcattgtgag	600
caaacggagg ttccagtacg aagaagaagt gaaggcgaat ccacacaatt atgatgcatg	660
gnttgattac ttgcgcttgg tagaaagtga cgcanaagct tgaacntga gagaagtcta	720
tgaaa	725

<210> 3580

<211> 731

<212> DNA

<213> Homo sapiens

<400> 3580

gtgtaataac aacatctccg agggcgaagg gtatgtggag tctccagatc tggggagccc	60
cgtcagccgc accctggggc tcctggactg cacttacagc atccatgtct accctggcta	120
cggcattgag atccagggtc agacgctgaa cctgtcacag gaagaggagc tcctgggtgct	180
ggctgggtggg ggatccccag gcctggcccc ccgactcctg gccaaactcat ccatgcttgg	240
agaaggacaa gtccttcgga gcccaccaa ccggtgctt ctgcacttcc agagcccacg	300
ggtcccaagg ggcgggtggc tcaggatcca ctatcaggcc tacctcctga gctgtggctt	360
ccctccccgg ccggcccatg gggacgtgag tgtgacggac ctgcaccctg ggggcactgc	420
cacctttcac tgtgattcgg gctaccagct gcaggagag gagaccctca tctgcctcaa	480

tggcaccg ccatcctgga acggtgaaac cccagctgc atggcatcct gtggtggcac 540
 catccacaat gccaccctgg gccgcatcgt gtccccagag cctgggggag ccgtagggcc 600
 caacctcacc tgccgttggg tcattgaagc agctganggg cgccggctgc acctgcactt 660
 tgaaagggtc tcgctggatg angacaatga ccggctgatg gtgcgctcag ggggcaacct 720
 cctatncccc g 731

<210> 3581

<211> 875

<212> DNA

<213> Homo sapiens

<400> 3581

agagaaagat aatggaaata ttgaacttga aaataaaaaa ttagaaaaag agagtaagaa 60
 tgaacaagag agagaaaaga aggaaaacat ggctaaagag aatcctccca tgaattctcc 120
 ttgccaaata accgtgaaag gactcagtaa tttgggaaac acatgtttct tcaatgcagt 180
 tatgcagaac ttgtcacaaa caccagtgtc tagagaacta ctaaaagaag tgaaaatgtc 240
 tggaacaatt gtaaaaattg aaccacctga tttggcatta acagaacat tagaaataaa 300
 ccttgagcct ccaggccctc ttacttttagc catgagccag tttcttaatg agatgcaaga 360
 gaccaaaaag ggggttgtga caccgaaaga actcttttct caggctctga aaaaagcagt 420
 gcggttttaa ggctatcagc ggcaagacag ccaggagctg cttcgctact tattggatgg 480
 gatgagagca gaagaacacc aaagagtgag taaaggaata cttaaagcat ttggtaatc 540
 tactgaaaag ttggatgaag aactaaaaaa taaagttaaa gattatgaga agaaaaatc 600
 aatgccaaagt tttgttgacc gcatttttg tggtgaacta actagtatga tcatgtgtga 660
 tcaatgcaga actgtctnct tggttcatga atctttcctt gatttgtccc ttccagtttt 720
 agatgatcag agtggtgaaga aaagtgtaaa tgataaaaat ctgaaaaaga cagtggagga 780
 tgaagatcaa gatgtgagga agaaaaagat accacggttc cttaaaagag agaatgatat 840
 tcctttggga caagtagcct tnccgaaaaa gcaaa 875

<210> 3582

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3582

```

aacactacct ttgctgtaat ttcatttgag attttctaag ggtagaattt ggtctcacca    60
acaagtgagg atatagcctt atctcatgga ggacgagctc cgtatttact caggagcagt   120
cagggtacat tacataaaac aatggaggat gcctcatttt agcaaactag gtttctttgt   180
attcttcagt ccttttacag aattgatgtg ctaactgaat atcattgcag caactagact   240
aagatattca agatctcttt attggggatg ggagaaatag ggaaagaaat gtgtataagt   300
aattatgata ttgcaaaagt gatacttaga ttttacagcc tcagtagtct gcccagtgtc   360
cacattaatg aaggatccat gtttgtagtg agagaaaaaa accccaaggt aaccgatat    420
gatttaggat gcatatcagt tctaacaatt caatcagaag tcaagctcat tggaattcct   480
tttttaactg atccaaatac tagtagaagg gggagggaga ggtgttgggt ttttttttaa   540
gtttttattht aattttgttg gttagaattt ttttctgttt ttggcatcct acataatacc   600
ccccttcttg actttttctg ataattagct gatattcatg gttgnttagc acacagttca   660
ggacctttga gatcatgttt gtataagcac tccttgaaga atatctaagc ttttctgana   720
tgggctttta aaatataatn agggaagtta ttttctgcgg ttttgcaaga ataaccaagc   780
cctggaatta atttttcatt ggganccgat taaaat                                816

```

<210> 3583

<211> 713

<212> DNA

<213> Homo sapiens

<400> 3583

```

agagtccgcg ccctgcgtcc gcgaccagga ggatcggacc ttcgccttcg ctgtcgccgc    60
cgccgccgcc cgcggccgtc ggggctatta gtgaaagatg gtggatcgct tggcaaacag   120
tgaagcaaat actagacgta taagtatagt ggaaaactgt tttggagcag ctggtcaacc   180

```

tttaactata cctggacgag ttcttattgg agaaggagta ttgactaagt tgtgcaggaa 240
 aaagcccaaa gcaaggcagt ttttcttggt taatgatatt cttgtatatg gcaatattgt 300
 catccagaag aaaaaatata acaacaaca tattattccc ctggaaaatg tcactattga 360
 ttccatcaaa gatgagggag acttaaggaa tggatggcta atcaagacac caactaaatc 420
 ttttgcagtt tatgctgcca ctgctacgga gaaatcagaa tggatgaatc atataaataa 480
 atgtgttact gatttactct ccaaaagtgg gaagacaccc agtaatgaac atgctgctgt 540
 ctgggttccct gactctgagg caactgtatg tatgcgttgt cagaaagcaa aattcacacc 600
 tgттаатсгт сгссасатт ссгсасатт тгггттггт ггсгтнггс ссгсгсгсг 660
 aaagagattc ttcttcccag ccagnccttt aancctggcc ggatttggaa ctt 713

<210> 3584

<211> 666

<212> DNA

<213> Homo sapiens

<400> 3584

gtcctaagat ggctgctggg cgaccacttc ctgacagctc cagttaacgg gactgccagc 60
 aggctagaca tccttcgccg gaatgtgcag cgcttagttc tgtgcccggg aggggcttct 120
 ctctcttttg ggattggagt gtggcattgc cgccagaaag cctgcagaat tccgggttgt 180
 gcagccaagc aggaacggtg tacctttcta gaccatcct cttgcaatct tggaccctaa 240
 gaaaagatgt ggagtgggct gctacctcct ggcctaaatg aaagtgacgc tgagtcaaac 300
 tcggaagatg aagctacgtt ggagaactct ggacttaact tacaggaaga taaagaggat 360
 gagagcatca gaaaaacaga aatcatagat ttctcaacag atgaaccaa aactgaaaca 420
 gagtcaaattg taaatgccta tgaagagtgt ctttctggaa ttcccataga tatgtggaat 480
 aaatttcaag aattgcataa aaaacattct gaacagaaaa gcacaacctc aagattcaga 540
 gggaaaagaa gaaaacgctc cagaaaagat aaattgaaga atgaaaaaga attacatagt 600
 gaaccgtcct caatgaaacc agtgggaaga gcttacttag nattttnggg gccatggtn 660
 aattta 666

<210> 3585

<211> 781

<212> DNA

<213> Homo sapiens

<400> 3585

```

atgcgaggct ggggccggtt gcctaccggc cgcttctcgc cgaggcagtc cagacttttc 60
ccccggcggt gcccgtcca agacagcadc tgtcaacgct cctcttctcc cctcctcttc 120
ctgccggggc gggctccgcc ggctgcggcc gagaggacgc gggacccggc gcggtgagcc 180
catcagctgt caggcgagcg gcgaagcggc tggaggcgcg cgagagacac acaaagaacg 240
cgggtgggcgg cggcggcgaa aggggacggc aactcctccc cgcgcccgcc ggtgccaccg 300
ccggccgtgc ttgttccgag gccgcgcaga caatgcggcc gggctcgtcc ccgcgtgccc 360
cagagtgcgg agcgcgccgc ctccccgcac cccaacttga ccgtctcccg gctcgcccag 420
ccccctcccg gggtaggggc gccccctccc tccggtggcc ggccaaggaa gtcggtccgc 480
ggccgcagat cccggcaact tgcgaaccgg gaaaagtttg cggcgcctcc gcggggcggc 540
gcgacgcgtc ccgccccctc cgtccgcggg catcgcgggt gactttctcg actcgtcgtc 600
agccgggggc gagcgcggn cgtggggact gcggggcggg cccggagtcc gtccgaggtc 660
ttccgacctt gggcttgagg atttcangta cttccacttg ggcattttct cttcatggac 720
ccttatagca accaaaaagt ggtttancaa aacaaccgga acattttttg ggatttaatn 780
t 781

```

<210> 3586

<211> 489

<212> DNA

<213> Homo sapiens

<400> 3586

```

tgtgaattgg gccagaagat cagagtgnaa tatgngtaat actccaaagt atgctaaatt 60
agaagaaaga acaggatatg gtgggtggtt taatgaaaga gaaaatgttg aatatataga 120

```

aagagaagaa tctgatggtg aatatgatga gttinggacgt aaaacgaaaa aatacnagg 180
 gaaagcagtt ggtcctgcat ctatattaaa ggaagttgaa gataaagaat cagagggaga 240
 agaagaggat gaggatgaag atctttctaa atataagtta gatgatgatg aggatgaaga 300
 tgacgctgat ctctcaaaat ataatcttga tgccagtga gaagaagata gtaatanaaa 360
 gaaatctaata agacgaagtc gctcanagtc tcgatcttca cattcacnat cttcatcacg 420
 ctcatcctcc cctcaagtt caaggcttaa gtccaggctc cgttcaagan gttcttccag 480
 ttcgcantc 489

<210> 3587

<211> 819

<212> DNA

<213> Homo sapiens

<400> 3587

gtcccggtg gaggcggcgg agccggagcc gggggagggg gcagcggctg tctcacggac 60
 cacggcggcg cccgcagctc ctcaccgaaa caaggagacc agtgctggtc cagtggctgt 120
 gatgggaaaa gattattaca agattcttgg gatcccatcg ggggccaacg aggatgagat 180
 caagaaagcc taccggaaga tggccttgaa gtaccacca gacaagaata aagaacccaa 240
 cgctgaggag aagtttaagg agattgcaga ggcctatgat gtgctaagt accccaagaa 300
 acggggcctg tatgaccagt atggggagga aggcctgaag accggcgggtg gcacatcagg 360
 tggctccagt ggctcctttc actacacctt tcatggggac ccccatgcc cttttgcctc 420
 cttctttggt ggctccaacc cttcgatat cttctttgcc agcagccgct ccactcggcc 480
 cttcagtggtc tttgaccag atgacatgga tgtggatgaa gatgaggacc catttggcgc 540
 tttcgccgt tttggcttca atgggctgag taggggtcca aggcgagccc cagaaccact 600
 gtaccctcgg cgcaaggtgc aggaccccc agtggtgcac gagctgcggg tgtccctgga 660
 ggagatctac catggcttca ccaagcgcac gaagatcaca aggcgtcgcc ttaaccctga 720
 tgggccgaac tgtgcgcacc gaggacaaga tccttgcaca tagtcattaa gcgttggctt 780
 gnaaggaang cacccaagat cacctttccc naagaaagg 819

<210> 3588

<211> 664

<212> DNA

<213> Homo sapiens

<400> 3588

```

aaaaaatcac ccggatggcg gctgcgacgc gcggctgccg gccctggggc tcgctcctcg   60
ggctgctcgg gctgggtctcg gccgcggccg ccgcctggga cctggcttcc ctgcgctgca  120
ccttgggcgc cttttgcgaa tgcgacttcc ggcccgaactt gccgggtctg gagtgtgacc  180
tggtcagca cctggccggc cagcatctgg ccaaggcgct ggtgggtgaag gcgctgaagg  240
cctttgtgcg ggaccagcc cccaccaagc cgctggctct ctccctgcac ggctggaccg  300
gcaccggcaa atcctatgtc agctccctgc tggcgcacta cctcttccag ggcggcctcc  360
gcagcccccg cgtgcaccac ttttctcccg tcctccactt ccccccaccc agccacatcg  420
agcgctacaa gaaggatctg aagagctggg tccaagggaa cctcactgcc tgtggccgct  480
ccctcttctt cttegatgag atggacaaga tgccccagg cctgatggaa gtcctgcggc  540
ctttcctggg ctctcctgg gtggtatacg ggaccaatta ccgcaaagcc atcttcatct  600
tcatcaggtg gggcccggct ttgcagtggg cacaatgcng ggggccactt ttnanaggtt  660
aact                                             664
    
```

<210> 3589

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3589

```

gcgagcctgc gttttccggc cagaggacat gatgcagggg gaggcacacc ctagtgcttc   60
ccttattgac agaaccatca agatgagaaa agaaacagag gctaggaaag tggctcttagc  120
ctggggactc ctaaattgat ctatggctgg aatgatatat actgaaatga ctggaaaatt  180
gattagtcca tactacaatg tgacatactg gccctctgg tatattgagc ttgcccttgc  240
    
```

atctctcttc agccttaatg ccttatttga tttttggaga tatttcaa atactgtggc 300
 accaacaagt ctggttggtta gtcctggaca gcaaacacit ttaggggtga aaacagctgt 360
 tgtacagact acgcctccac atgatctggc agcaacccaa atccctcccg ctccaccttc 420
 cccttcaatt cagggtcaga gtgtgttgag ttatagccct tctcggtcgc ccagtaccag 480
 tcccaagttc accaccagct gtatgactgg ttacagccct cagctgcaag gtctgtcctc 540
 aggtggcagt ggttcttata gccctggagt gacctactcg cccgtcagtg gttataataa 600
 ggtaatgact ctcttctctt gnctagtcac attatttttag aattgagagg tatactaaaa 660
 atcatcta at gactcaaaac ttatcantga gcaaactgag agttgatttg cccagaacac 720
 ccatttaaaa acccggaat tgaacatnat atcttaaaaca caacatctta aaatggaaag 780
 agaaaaaatt tgcnttttcc ggagatacca acntta 816

<210> 3590

<211> 828

<212> DNA

<213> Homo sapiens

<400> 3590

ccaagcactt aactttcttt gactgcactg agaattgcta atgatttccc atgagatttg 60
 ctacttttg tatactgtat tttccagcat tacagaacct tggttattgt ttttagcca 120
 tagaatcttc tagtaaaaaa tatctgccac cattttagat ttaagcattt gcctatgggg 180
 agacactgaa tatgtggatg tgtgtattaa tatttggggt ggggacaggg aagggaatgt 240
 ggaaaacaaa tgctggctgt gaggcagtgt gagatggcca ggccaggcgg ctgagtttgc 300
 ttggaaattc aggacattct gactcctaag agttgcccc acccaccatc aaactgaaat 360
 cagcaccaat ggtgtcagca ctttacagcc catagccaac tttctttatt tttaacgtag 420
 cacaaaaatg tataatagca aggaaaagac atttttaaat tccggttatt tttattgtct 480
 aaaatgaaag caacagtgtt ttgataaaga tgaaaaagaa aagctactaa attagtaaat 540
 cagtggttac gtgccctgca gaatttctta acagatgggtg ctgagtgcac gagttacata 600
 actttctctc taattgaggt tcacaaggcg tcttctaaat tttgctttga caattaattc 660
 atttctgatg gtaaccaa at agagtgnata tatectactc ccattactgg ctctttcccc 720

ctactatggc ttgnagattt tcaaaagata gaagtctagg caaaactgtn cagttcatta 780
aaagttggta ggatagtatn tctaaaatca gagatttggc ccctcctt 828

<210> 3591

<211> 769

<212> DNA

<213> Homo sapiens

<400> 3591

ttgtgtgaca actgagggca aagaaggga aacagaagca aagaaaactg tttcaaaagc 60
cttgggaattg ctactgttaa aaggctgcgg ttcatttctg atttcctcat cttttgctac 120
aaaggaaaaa gaaatccaat gatgtgtcta cctttgggtga gaagaaaaca cgagcaacag 180
cagtgtagtt tcgaaagtca ttgtgcagag agggcaggag tgaattaagg ccccggggac 240
cgcggaacgcc tggccaggag accgcctgaa atatgagccg aacctgtttt gcagaaactg 300
caggctgttc agaatccaat tctctggata ttggcatgct acattcaatg tccagctaca 360
ttaagtgtcc atctatcaaa atactagatt tcatggctgg agcaggaaaa gttatgagct 420
tggaatatct tcagtgcctg aaagtgagga agtgctccca aaaatatgaa ggcctgtcaa 480
aaggagagaga acaagaagga ggaggagcta gaaaaagaaa aagcagtggg aactgtcatg 540
ggtgaatccc agaatgggca tcccagatga catctgtctc cattcctgcc atctcttct 600
ggctgccagc cacttagcct ccaggtgttt gtgtctaagg ccaactctct ttccagacta 660
gaagaaagtg aggcagctca ccttttcatt tangtttact ttggaaagt ctgtggttga 720
atatcaacat agtgactgat ttgnggctt gtaaagcttg tacagctna 769

<210> 3592

<211> 789

<212> DNA

<213> Homo sapiens

<400> 3592

aagtgtcttc ctgacccgcc gctgtgcagc gcagcgcacc gcgggaagat ggcgttggag 60
gtcggcgata tggaagatgg gcagctttcc gactcggatt ccgacatgac ggtcgcaccc 120
agcgacaggc cgctgcaatt gccaaaagtg ctaggtggcg acagtgctat gagggccttc 180
cagaacacgg caactgcatg tgcaccagta tcacattatc gagctgttga aagtgtggat 240
tcaagtgaag aaagtttttc tgattcagat gatgatagct gtcttttgaa acgcaaacga 300
cagaaatgtt ttaaccctcc tcccaaacca gacccctttc agtttggcca gagcagtcag 360
aaaccacctg ttgctggagg aaagaagatt aacaacatat ggggtgctgt gctgcaggaa 420
cagaatcaag atgcagtggc cactgaactt ggtatcttgg gaatggaggc cactattgac 480
agaagcagac aatccgagac ctacaattat ttgcttgcca agaaacttag gaaggaatct 540
caagagcata caaaagatct agacaaggaa ctagatgaat atatgcatgg tggcaaaaaa 600
atgggatcaa aggaagagga aaatgggcaa ggtcatctca aaaggaaacg acctgtcaaa 660
gacaggctag ggaacagacc agaaatgaac tataaaggtc gatacgagat cacagcggaa 720
gattctcaag aaaaagtggc tgatgaaatt cantcagggt acaggaccaa naaagactga 780
tancccgat 789

<210> 3593

<211> 719

<212> DNA

<213> Homo sapiens

<400> 3593

cttcaggaga ggatctgtaa gactacacaa acagagttag ccattgccat agaatattct 60
cttgacagga ccctagctca taaacatttc ttcagaacta tacttcaaact gggatgcttt 120
gtattaaaac ttaataaat ttaatttatt tttcttttg aatataaata actgagctta 180
agcattatca tcatatcgat ttcttatgct gcctaaacct ctttaatttta gtcgaaatat 240
atcttttttt ttttttggag gcggaatttc attcttggtg cccaggctgg agtgcaatgg 300
cacggctctg gcttaccgca acctccgct cccgggttca ggcgggttctc ctgcctcgga 360
ctcccagagta gctgggacta caggcatgtg ccactacgcc cggctaattt tgtattttta 420
gtagggacag ggtttctcca tgttggtcag gttgctctca aactcccaac ctcaggatgat 480

ctgccccgct cggcctccca aagtgtctggg attactgagc cactgtgccc agcccaaaat 540
gtatcttata caaacattgt anaaatgaat aatgattact caaataagat cttttaatta 600
taagcttctg gcatctctat ttttccctta agtaggggat actaaagnga atgattttct 660
aagaggatct tttgaaactc tttagncaat attngagtaa aataaattat tgggggatc 719

<210> 3594

<211> 841

<212> DNA

<213> Homo sapiens

<400> 3594

gaaaggtcac agcgcggcag cgggtctggc tggcggcagc ggCgggaggg agccgagaga 60
cccgagtga cgtgtggaga agcggcggca caagCgCggc ggCgggagac actcccggcc 120
ccaccagact caagccctca ctgactctc gcggccttcg ttgctcgac agtccctgc 180
ccaggctagg aggccggctt gcggggttga gtggcccag ctaagggtgc ggagacctaa 240
gggcggcgac tacgacggcg ttgatatcgg tggtaacgac ggcctcagca ggCggggaag 300
atgaaaggta gccggatcga gctgggagat gtgacaccac acaatattaa acagttgaaa 360
agattgaatc aggtcatctt tccagtcagc tacaatgaca agttctacaa ggatgtgctg 420
gaggttggcg agctagcaaa acttgcctat ttcaatgata ttgctgtagg tgcagtatgc 480
tgtagggtgg atcattcaca gaatcagaag agactttaca tcatgacact aggatgtctg 540
gcaccttacc gaaggctagg aataggaact aaaatgttaa atcatgtctt aaacatctgt 600
gaaaaagatg gtacttttga caacatttat ctgcatgtcc agatcagcaa tgagtcggca 660
attgacttct acaggaagtt tggctttgag attattgaga caaagaagac tactatnaga 720
ggatagagcc cgcagatgct catgtgctgc agaaaaacct caaagttcct tctggtcana 780
atgcaatgtg caaaagacag acaactggac aaattacaaa tgaactttnt tgccttgctt 840
g 841

<210> 3595

<211> 826

<212> DNA

<213> Homo sapiens

<400> 3595

```

ttctttgaat tccggaggcg gcattcgggtg gtcagaggcc tgtgcggctg caggtagagt 60
gtcttaggaa cctaggaaat aactcggaac ctgtaacgtc ccactggttt ggacatattc 120
ctctcctgat ctggcctcat ctgttccagg gaggtgggat tgaaacatat gcagtaatgt 180
cacctcaaaa gagagttaag aacgtccagg caaaaacag gacttcacaa ggtagtagta 240
gttttcagac cacgctttca gcctggaaaag taaaacagga tccaagcaac tcgaagaaca 300
tctcaaaaaca tggacaaaac aatccagtgg gagattatga acatgctgat gatcaagctg 360
aagaagatgc tttgcaaatg gcagtgggat attttgagaa aggtcccatt aaagcttcac 420
agaataaaga taaaaccttg gaaaaacact tgaaaactgt ggaaaatgtg gcttgaaga 480
atgggttagc ttcagaagaa attgatattc tattaaatat tgcactcagt ggcaaatttg 540
gaaatgctgt aaacacacgg atatigaagt gcatgatccc agcaacagta atacagaag 600
attctgtggt taaggcagtc tcctggcttt gtgttggaac gtgttctggt agcaccaagg 660
tactttttta tcgntggctg gntgcaatgt ttgacttcat tgatcgtaag gagcaaatta 720
acttgctcta tggtttcttt tttgcttcat tgcaggatga tgcactgngc ctttatgttt 780
ggcatttggt atattacttc caaaaaagag aatgtnaanc ctttcg 826

```

<210> 3596

<211> 781

<212> DNA

<213> Homo sapiens

<400> 3596

```

agggtcacaa gggagatgtc cgccccagc cgtagcctcg gacggtttct gagcgttggt 60
gtttggcacg cgccaccctc tcttgctttg gttccgcat gccgatgtac caggtaaac 120
cttatcacgg gcgcggcgcg cctctccgtg tggagcttcc cacctgcatg taccggctct 180
ctaacgtgca aggcaggagc ggcgggccag cgccggcggt tggccaccta cagtctttgg 240

```

tagatgagtg gctggatagc tacaagcaag accaggatgc aggatttctg gagcttgтта 300
 actttttcat ctgatcttgt ggatgtaaag gactcggggg actatcctct gacagctcca 360
 ggtctatcct ggaagaagtt ccagggcagc ttctgtgagt ttgtggggac attggtctgt 420
 cgggtgccagt acatcctcct ccatgatgac ttccctatgg acaacctcat ctccctgctc 480
 actggcttct cagactcaca agtctgcgcc ttctgtcaca ctagcaccct ggctgctatg 540
 aaactgatga cctccctggg aagagttgcc ctccaactga gtctgcacca agatatcaat 600
 cagcgtcagt atgangctga aagaaacaag gggccagggc agaaggcacc tgancgntg 660
 gagaagcctg ttggagaaac acaaagagct gcattaatac tacattgtca aagacaaaga 720
 cgaacatgag acatgcgata tgagttttaa aaggagagaa gagcnnaaaa accattcagn 780
 t 781

<210> 3597

<211> 759

<212> DNA

<213> Homo sapiens

<400> 3597

ggtgaatggg ctggtggtgc tcgctgctgc tgctgagagg aggaggagga tgaagagttg 60
 ggcttgtttg tctcctcctc ctctgcttc ccctgctcag agttcctgcc tccagctgcc 120
 aggggggaca gccagccagc agcaggaggg gggctagaga gctgaaggag agccagtttc 180
 cccaaaattg gacttctcag aacctttaat atgctaattg gcatttgtga tctccaagag 240
 ggggatatga tatgcagcat tcttgaatac ttctaattgac agggagccca ctacctcata 300
 agctgcagtg agaagaggag ttgtttactt taaacagagg ctgaagaaac tatagaatta 360
 gcagagaaaag tggagaaggt agaggatgga gttgcagact ctacaggagg ctcttaaagt 420
 ggaaattcag gttcaccaga aactggttgc tcaaatgaag caggatccac agaattgctga 480
 cttaaagaaa cagcttcattg aactccaagc caaaatcaca gctttgagtg agaaacagaa 540
 aagagtagtt gaacagctac ggaagaacct gatagtnaag caagaacaac cggacaagtt 600
 ccaaatacag ccattgccac aatctgaaaa caaactacaa acagcacagc agcaaccact 660
 acagcaacta caacaacagc agcagtacca ccaccnccac gccccagcagt cagctgcagc 720

ctnttnccaa cctgactgct tacagaagac tgtaactac

759

<210> 3598

<211> 357

<212> DNA

<213> Homo sapiens

<400> 3598

agccgccaca ctttcccaag cccgcaggcg ccccccccaa caccagcgct gcacccccga 60
cccatcccc gcgggcccct ccaggagaaa aaatgaaacc agactggccg aggagggggg 120
cggcaggggac caggggtgcg agcagagggtg agggagacgg gacttacttt gcgaggctcg 180
gtgcagggcg ccgccgacga gaaataaagg ccccgatacg ggctgcctgg agccccccga 240
gcgcagcaat gtcagggctc cagtccgggc ggcgttggcg gncgcagggg acggggacgg 300
gcgcgcgtgc ngcgggcgct ctcgctgcgc tccggctcgg gccccggntc cgcgcgg 357

<210> 3599

<211> 659

<212> DNA

<213> Homo sapiens

<400> 3599

ncggagggaa ggaaggaaga gagggaggcg ggcaagcagg cgggcgcggg ggtcggggac 60
tgaggcagta gagggaggcg agagcccggc agccgcttcg cgctgtttgc tgcgcgggct 120
tttgaggggg gcggccgttt agtcggctga ggagaagcgg acaccagcgg cgttggtgat 180
agcgcctggg ggagggggac tggagaggcg agaagggggg tcgctgcggt ggttctctcg 240
ctgtcgtctt ctctttgcct cgctcccggc tcggcgggct cctcccggcg tctctctcgc 300
ctccggggtc ccgctccccg cccccgcgg tatgtcttga tcccagacag cgggtttcat 360
ggggctcctc aggattatga tgccgtccaa gttgcagctg ctggcgggtg tggccttcgc 420
ggtggcgatg ctcttcttgg aaaaccagat ccagaaactg gaggagtcgc gctcgaagct 480

agaaagggct attgcaagac acgaagtccg agaaattgag cagcgacata caatggatgg 540
ccctcggcaa gatgccactt tagatgagga agaggacatg gtgatcattt ataacagagt 600
tcccaaaacg ggaagcactt catttaccaa tntcgnctat gancctgtgt gcaaagaat 659

<210> 3600

<211> 778

<212> DNA

<213> Homo sapiens

<400> 3600

tcggaactcg ccaggggcg cgccggcggc ggagggagcg tgactgcgct gcgcagggcg 60
ctaggaggca ttgtcgccgc tcaggccctt ttgtgagaag cagaccagcc tgggggctgg 120
cggcaggaca cctgtgtctg catgctgaag aagatgggtg aggccgtggc cagagtagca 180
aggaaggtca acgagacggt ggagagcggc tctgacactc tggacctggc cgagtgaag 240
ctggtctcct ttcccattgg catctacaag gtccctgcga atgtctctgg ccagatccac 300
ctcatcacc cttggctaaca cgagcttaag tccctacca gcaagttcat gaccacattc 360
agtcagctcc gagatgtgcc cgtggagaag ctggccgcca tgccagcctt gcgcagcatc 420
aacctccgct tcaaccact caacgccgag gtgcgcgtga tcgccccgcc gctcatcaag 480
tttgacatgc tcatgtctcc ggaaggcgca agagcccccc taccttaggc caccctcctc 540
atgcccaccc agcaaggac agaggccaca ggcctggaac cctggaaggg agggaggccc 600
atgggaggcc aagcctgggg gctgggggcg ggtgggcccga gcacnacgtg gtgggtgggg 660
tgcaactggt ctggatagat agcttacagc agtagtgggc tctggaatgc ccaaaggga 720
gaagcaaggt gggggcctgc aancccngac ttngggactt aacaagcttg cttggtgc 778

<210> 3601

<211> 767

<212> DNA

<213> Homo sapiens

<400> 3601

```

agtgctagga acctgcgccc ggctgagctg agcgaggcga gaggagaaag cgaggcccgg 60
ggacggggact gagagctctg aaaggaggga ggcggtctcc gactactccg cgccgggcag 120
gccccggcct cgcctgttcg cccattttta aggctcgagt tagaggccac ctctccgag 180
aagccttcgg tgacaccacc tctcccagac ggttcccctt tctgattccc acagcatttt 240
ccaaccattc acggtcagaa ccactcacca ggacgtgttg tcaccatttt accgctttgc 300
ctcgtctctt aactagacga aatgggttcc ttttggtctt ttggaaaggg aggctgtctt 360
ctattttatt ccgtggtaat cccacctccc acaacaagtt ccattctaca gcaatgtctt 420
ttctcttgct gagaaccatt caagtctaag ttttctgtcc tggttgctca tctcgcccac 480
ttgcacagcc cacctgtgtg gccgactcag gattgacca cctgctctct tcaggccata 540
ttcccacgca gaagtgggtc ccactcctca ggcctctgtg ctggccccgt ctgtgggggt 600
agcaagcagc cctgctctnc atttccagct cagaagcaac tggatcgta cctcattggt 660
gacaacttga cttgtgctgc caaaacttga tangaaacat taccggggg aaaaccactt 720
gcttttcctt ggttntaat cagggtggga aanactggta aattttt 767

```

<210> 3602

<211> 714

<212> DNA

<213> Homo sapiens

<400> 3602

```

atatttatgt caatctggct acttttctag tatgttcagt ggttcttgga aagaatccag 60
catgaatatt attgaactgg agattcctga ccagaacatt gatgtagtag cactgcaggt 120
tgcatttggt tcaactgtatc gagatgatgt cttgataaag cccagtcgag ttgttgccat 180
tttggcagca gcttgtttgc tgcagttgga cggtttaata cagcagtggt gtgagacaat 240
gaaggaaaca gttaatgtga aaactgtatg tggctattac acatcagcag ggacctatgg 300
attagattct gtaaagaaaa agtgccttga atggcttcta aacaatttga tgactacca 360
gaatgttgaa ctttttaaag aactcagtat aaatgtcatg aaacagctca ttggttcac 420
taacttattt gtgatgcaag tggagatgga tatatacact gctctaaaaa agtggatggt 480

```


ccttcaactt gtgccttctt ggaatggatc tttaaaacag cttttgacag acacagatgt 540
 ctggttttct aaacagagga aagattttga aggtatggcc tttcttgaaa ctgaacaagg 600
 aaatccattg ggtcagtatt cagacattta aggttacaat atattatcag tgatctggct 660
 tctgccaaga attattggac caagaatctg gnantacctt canaaatggc tcct 714

<210> 3603

<211> 712

<212> DNA

<213> Homo sapiens

<400> 3603

gaataagctg aaggccatca aagcccggaa tgagtacttg ctggctttgg aggcaaccaa 60
 tgcatctgtc ttcaagtact acatccatga cctatctgac cttattgatt gttgtgactt 120
 aggctaccat gcaagtctga accgggctct acgcaccttc ctctctgctg agttaaacct 180
 ggaacagctg aagcatgagg gtctggatgc catcgagaat gcagtagaaa acctggatgc 240
 caccagtgc aagcagcgcc tcatggagat gtacaacaac gtcttctgcc cccctatgaa 300
 gtttgagttt cagccccaca tgggggatat ggcttcccag ctctgtgccc agcagcctgt 360
 ccagagtgc ctggtacaga gatgccaaca actgcagtct cgcttatcca ctctaaagat 420
 tgaaaacgaa gaggtaaaga agacaatgga ggccaccctg caaaccatcc aggacattgt 480
 gactgtcgag gactttgatg tgtctgactg cttccagtac agcaactcca tggagtccgt 540
 caagtccacg gtctctgaaa ccttcatgag caagcccagc attgctaaga ggagagccaa 600
 ccagcaagag acagagcagt tttatttcac aaaaatgaaa gagtcctgga nggcaggaa 660
 cttatnacca agttacaagc caagcatgac ctttttgc an aaaaacctgg ga 712

<210> 3604

<211> 732

<212> DNA

<213> Homo sapiens

<400> 3604

```

aaaaaaaaa agcgggtgct gcttgctgca ggctctgggg agtcgccatg cctacaacac   60
agcagtcccc tcaggatgag caggaaaagc tcttgatga agccatacag gctgtgaagg  120
tccagtcatt ccaaataag agatgcctgg acaaaaacaa gcttatggat gctctaaaac  180
atgcttctaa tatgcttggt gaactccgga cttctatgtt atcaccaaag agttactatg  240
aactttatat ggccatttct gatgaactgc actacttgga ggtctacctg acagatgagt  300
ttgctaaagg aaggaaagtg gcagatctct acgaacttgt acagtatgct ggaaacatta  360
tcccaaggct ttaccttttg atcacagttg gagttgtata tgtcaagtca tttcctcagt  420
ccaggaagga tattttgaag gatttggtag aaatgtgccg tgggtgtgcaa catcccttga  480
ggggtctgtt tcttcgaaat taccttcttc agtgtaccag aaatatctta cctgatgaag  540
gagagccaac agatgaagaa acaactgggtg acatcagtga ttccatggat tttgtactgc  600
tcaactttgc agaaatgaac aagctctggg tgccaatgca gcatcagggg acatagcccg  660
agatngagaa aaangagaac gaagaaagac aaggaactgg agaaattttt agtggggaaa  720
caaaattttg gn                                     732

```

<210> 3605

<211> 744

<212> DNA

<213> Homo sapiens

<400> 3605

```

gaaagtgtgt gaaattcatt ttcataaat caacaacaaa atggtggaat gtaagaaagc   60
tcagccaaag gaggtgatgt cgccaacggg ctcagcccg ggaggtctc gagtcatgcc  120
ctacggaatg gacgccttca tgctgggcat cggcatgctg ggttaccag gtttccaagc  180
cacaacctac gccagccgga gttatacagg cctcgccctt ggctacacct accagttccc  240
cgaattccgt gtagagcgga cccctctccc gagcgcccca gtcctccccg agcttacagc  300
cattcctctc actgcctacg gaccaatggc ggcggcagcg gcggcagcgg ctgtggttcg  360
agggacaggc tctcaccctt ggacgatggc tccccctcca ggttcgactc ccagccgcac  420
agggggcttc ctggggacca ccagccccgg ccccatggcc gagctctacg gggcggccaa  480

```

ccaggactcg ggggtcagca gttacatcag cgccgccagc cctgccccca gcaccggctt 540
 cggccacagt cttgggggcc ctttgattgc cacagcctta ccaatgggta ccactgaagc 600
 aggggacggt ggcaggagcg ccccaacctg caactgactg aggaccacga gtgagccaac 660
 gagggggcgg gagacctnac cgcagccgnc gcccttcctt gcaacgactt ggacccgnta 720
 ctgctgcccc acttcccggc ccgg 744

<210> 3606

<211> 833

<212> DNA

<213> Homo sapiens

<400> 3606

gcggcttccg gcggcgtgac ctgaccgcaa gaggccaatg gagtgtggga gctgaaaggg 60
 tcttcgctgg cggccggtaa ctggcgggcg ttgggaacgg ccgagtgtgg ctcttctggt 120
 gtttcagctt ggggagagag ggggtggcctt cctcttgtag ttgaggccgg cgccgagccg 180
 gacttcaggc ggatctcgtg gcggagccca tcttgctccc tctcccaggc ctttaccgcg 240
 tccctaggat tcccgggccc tgtaggtggg agttgggaga cgacagtact gcttttaaag 300
 agacagtgtt agggatcttg gaagcacagc caacatgtgt gacattgaag aagccactaa 360
 ccaactccta gatgtgaacc ttcattgagaa ccagaagtct gtacaagtga cagaaagtga 420
 cctcggaagt gaatctgagc ttctagtcac tattggagcc actgtaccta ctggctttga 480
 gcaaacagct gcagatgaag tcagagagaa acttgggtca tcatgcaaaa tcagcagaga 540
 ccgtggcaag atatattttg tcatttcagt ggaaagtctg gcacaggttc attgtctgag 600
 atcagttgat aacttatttg tggtggttca ggagtttcaa gattaccagt tcaaacaac 660
 aaaggaagaa gttctaaagg attttgaaga cttggctgga aaactccatg gtcaaacc 720
 ttaaaagtgt ggaaaattaa tgccagtttt aaaaagaaaa aagcaagcgc aaaaagatna 780
 atcagaattc aagtaaggag aagattaatn atggncaaga agtcaaaatc atc 833

<210> 3607

<211> 823

<212> DNA

<213> Homo sapiens

<400> 3607

```

attgctgggt caaatggtag ttctgtttta acttctttga gaaatctcca aactgctttc 60
acagtggctg aactaatttg catttccatc agtgtaggcg cattctacac tgcactggct 120
tctacagtgt tgaagcattc cgtttttccc acagcctcac cagcatctgt tatttttttg 180
actttttgat aatagccatt ctgactgggt tgagattgta actcattgtg gttttgattt 240
gcatttatct gattagtaat gttgagcatt tttcatgtt tgtaaccgc ttgtatgttg 300
tcttttgaga agtgtctgtt caagtccttt ggcatTTTTT taatgggttt ttgtttgtgt 360
gtgtgtatTT ttgtttttgt ttttgttttg agatggagtt tcactgttgt caccaggct 420
agagtgcaat ggcaccatct cagctcactg caacctccac ctcccgggtt caagcgattc 480
tcctgcccc a gcctcctgag ttgctgggat tacagggtgc tgccaccaag cgtggctaatt 540
tttggtactt ttagtagaga cagggtttca ccatgttggc cagcctggtc tcgaattcct 600
gacctcaggt gatccacca tctcagcctn ccaaagtgtt gggattacag gagttagcca 660
ccacacctgg cccgagttac ttggttttcg tttctgaatt ggtttaattc cttatagatt 720
ttggacatta gacctttttc agatgcccag tttgggaata tctctccatc tgtaggtgct 780
gntactggat tgaagtcctt ttgcgggcaa aactcttant tga 823

```

<210> 3608

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3608

```

aaaaaatgca gacgggatag ggggtgtgtgt gtgaggggag ggggcctgta tggcaactgc 60
tcttgcccc a gcgtcccaa aagtgcagag gcagcggctg cagcatccag ccagcttgga 120
tgtctggcct acttccagga ctctgaagaa acagttacaa gcaggatgct tttcccaacc 180
tctgcgcaag aatcttcccg tggcctccca gatgcaaag acttgtgcct tggcctgcag 240

```

tccctcagtt tgacaggctg ggaccgaccc tggagcacc aggactcaga ttcctcagcc 300
 cagagcagca cacactcggg actgagcatg ctccataacc cactgggaaa tgccttagga 360
 aaacccccct tgagcttcct gcctctggat ccccttgggt ctgacttggt ggacaagttt 420
 ccagcaccct cagttagagg atcacgcctg gacaccggc ccatcctgga ctctcgatct 480
 agcagccccct ctgactcaga caccagtggc ttcagctctg gatcagatca tctctcagat 540
 ttgatttcaa gccttcgcat ttctccacct ctgcccttct gtctctgtca gggggtggtc 600
 ccagagaccc tttaaagatg ggggtagggt ctcggatgga ccaagagcaa gctgctcttg 660
 ctgcagtcac ttccttccca accagtgcct caaagagatg gccaggagct tctgtgtggn 720
 catnctggga cctcttn 737

<210> 3609

<211> 832

<212> DNA

<213> Homo sapiens

<400> 3609

gtgcatgagg gggctgctcc ggagcgacgg cggctgcagc tggagccagg cgctcgccccg 60
 tccgccggtt ggctcgccgg gacctcgcg accggcgcca gagtcccttg cgtggattgg 120
 caagcgacgc cccacctgcc ccgagctcac cattttcttt cgcgctggct gcagctgacc 180
 cggcgaaggg agccgaccgg gccctgggct ggaggtaaaa cccacggaa agaacatgag 240
 gttcccttgg aaatcattca agaggaagat ggaaggggct gtttagaaga gcttaaaagc 300
 tacaggctgt aagactgggg cctgagtgtt ggagtgga aacactgttg ggctgtgac 360
 tctccctgaa aagttccagg tgcctttttg cttcctgcaa aagaaaggaa gcgaaagaga 420
 agaccatgtc catagccctg aagcaggtat tcaacaagga caagaccttc cgaccaaga 480
 ggaaatttga acctggcaca cagaggtttg agctgcacaa acgggctcag gcatccctca 540
 actcgggtgt ggacctgaag gcggctgtgc agttgccag tggggaggac cagaatgact 600
 ggggtggcagt acatgtggtg gacttcttca atcgatcaa cctcatctat ggcaccatct 660
 gtgagttctg caccgagcgg acctgtcctg tgatgtcaag gggccccaaa tatgagtatc 720
 ggtggcagga tgatctcaag tntaagaagc caacancgt tgccagcttc ccagtacatg 780

aaccttctta tggattggat tgaggttcan atcaacaacc agggaaatat tt 832

<210> 3610

<211> 836

<212> DNA

<213> Homo sapiens

<400> 3610

cagagaattg cttttctaga ttgatggag ggagggggag agtcacatca tttggattct 60
 accaatctgc aggctctatc ttggcaaca tgtaaataat tagactatac atctgtttct 120
 caagtatggc aagaccaata gtttgaattt aattatcaat gctatggtat actttctggt 180
 catatttttag ttatgtcagt ttttaaggtaa gttttttcat ttattaaagc ccttaaataga 240
 gatttttagac tgccaaagag aagaggcagt ccaattgacc taactgaaat gagatgacca 300
 gtatatagag cctagatgga ctgtagcagc tctaccctt tgttttacia ggtaaatacat 360
 tttaaaaatt accttttttg atcagtgggt aaaagttaaa gggatcttta atttttgata 420
 tattcaagtt aattttctaa atgtgaatca gtccttggac tgcaactata tattcaccta 480
 caaaatccca atcaaaaaat tacatgagcc tgtcaagcag atcttttagtt ttccacttca 540
 cacaagatcg ttaatgttct aaattaatct attcacttag atgatttttg tcagttctta 600
 aatgggatat aataaattta gcattttcat cttacaagc aaaagagtta aaaaacaaaa 660
 caaacactac tccaagccaa atacattcta nctgggtaat tccagacttg tccaagtgg 720
 ttccccaacc tcttttncac tggtaatttc tttcatgca ggcagaatat aggggtgcca 780
 acctgtgag ttttacatat gaacttggat aggggaacct gaaccagtc aggaac 836

<210> 3611

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3611

agagtgtga tttagaagaa tacaatcat ggctgaaaat agtgtattaa catccactac 60
 tgggaggact agcttggcag actcttccat ttttgattct aaagttactg agatttccaa 120
 ggaaaactta cttattgat ctacttcata tgtagaagaa gagatgcctc agattgaaac 180
 aagagtgata ttggttcaag aagctggaaa acaagaagaa cttacaaaag ccttaaagga 240
 cattaaagtg ggctttgtaa agatggagtc agtggagaagaa tttgaagggtt tggattctcc 300
 ggaatttgaa aatgtatttg tagtcacgga ctttcaggat tctgtcttta atgacctcta 360
 caaggctgat ttagagatta ttggaccacc agttgtatta aattgttcac aaaaaggaga 420
 gcctttgcc a tttcatgtc gcccgttgta ttgtacaagt atgatgaatc tagtactatg 480
 ctttactgga tttaggaaaa aagaagaact agtcagggtg gtgacattgg tccatcacat 540
 ggggtggagtt attcgaaaag actttaattc aaaagttaca catttgggtg caaattgtac 600
 acaaggagaa aaattcaggg ttgctgtgag tctaggtctc caattatgaa gccagaatgg 660
 atttataaag cttgggaaan gcggaatgaa caggatttct atgcagcagt tgatgctttn 720
 gaaatgaatt taaagttcct ccatttcaag aatggatttt tagnttcctg ggattttcag 780
 atgaagagaa aaccct 797

<210> 3612

<211> 686

<212> DNA

<213> Homo sapiens

<400> 3612

actggttcgc cgcggggacc gggcagggtc ccccgctcga gtgcactgcg ccggacactt 60
 caagccctgg agggacagga aagccagaaa tggacttcgt gagactcgtc cgactgttcg 120
 ccagggcccg ccccatggga ctgttcatcc tgcaacacct ggacccctgt agagccaggt 180
 gggcaggagg caggaggagg ctgatgcggc cagtgtgggc gcccttcagc agtcctcct 240
 ctcagctgcc cctcgccag gagcgtcagg aaaacacggg cagcctgggc tctgaccga 300
 gccactcaa ctccacggcc actcaggaag aagacagga ggaggaggag agttttggga 360
 ccctctctga caaatactcc tcccggagac tattccgcaa atccgcagcc cagttccata 420
 acctgcggtt tggggaacgg agagatgagc aaatggaacc ggagcccaaa ttatggcgag 480

gccggagaga caccctgtac tgggtacttct tgcagtgtcaa acacctgac aaggaaggga 540
 agctggttga agccctggac ctgtttgaga ggcagatgct gaaggaggag cgattgcagg 600
 ccatggagag caactacacg gtgctgattg ggggctgcng gcgggttggc tacctgaaga 660
 angncttcaa cctctacaac caagat 686

<210> 3613

<211> 792

<212> DNA

<213> Homo sapiens

<400> 3613

aaaactcagc tatgcaaagc aactcaggaa tctttcaaag aagtaccaac ctaaaaagaa 60
 ctggaaggag gaagaagaat acaagtatac gtcagttaa gctttcattt ccaacctgaa 120
 cgaaatgaat gattacgcag ggcagcatga agttatctcc gagaacatgg catcacagat 180
 cattgtggac ttggcacgct atgttcagga actgaaacag gagaggaaat caaactttca 240
 cgatggccgt aaagcacagc agcacatcga gacttgctgg aagcagcttg aatctagtaa 300
 aaggcgattt gaacgcgatt gcaaagaggc ggacagggcg cagcagtact ttgagaaaat 360
 ggacgtgac atcaatgtca caaaagcgga tgttgaaaag gcccgacaac aagctcaaat 420
 acgtcaccaa atggcagagg acagcaaagc agattactca tccattctcc agaaattcaa 480
 ccatgagcag catgaatatt accatactca catccccaac atcttccaga aaatacaaga 540
 gatggaggaa aggaggattg tgagaatggg agagtccatg aagacatatg cagaggttga 600
 tcggcaggtg atcccaatca ttgggaagtg cctggatgga atagtaaaag cagcccgaat 660
 caattgatca gaaaaatgat tcacagctgg taatagaagc ttataaatca nggtttgagc 720
 ctnttgagga cattgaattg aggattacac tnagcccatg aacgcactgt gtcagataca 780
 gcctttcaat tc 792

<210> 3614

<211> 715

<212> DNA

<213> Homo sapiens

<400> 3614

```
ccagagccca gacttgcagg ctacagggtgc aggggtgaacc tggccacagc tcaccctgga 60
acagccacaa tgtctgcccc ttagagaaga accctgaaat cagaccagtt tttgcggcct 120
ccccctttcc tctctgttac agtgcccttt ccaggcctta agagaagtaa aacttagctg 180
cagcgtcagg aggtggaccc cagagtgtga gtggcacgct tccctgtgaa cccgtcctca 240
ccatgtttgc cacatctggg gcagtggcag cggggaagcc ttactcgtgc agcgaatgtg 300
gcaagagctt ctgctacagc tcagtgtctg tgcgacatga acgagctcac ggcggtgacg 360
gccgcttccg ttgcctagaa tgcggtgagc gctgtgcacg ggctgtctgac ctccgagcgc 420
acaggcgcac gcatgtctggc cagaccctct acatctgcag tgagtgcgga caaagcttcc 480
gccacagcgg ccgtcttgac ctacacttgg gcgcacaccg gcagcgtatgc cgcacttgcc 540
cctgccgcac atgcggccgg cgcttcccgc acctcccggc gctgtctgta caccggcgcc 600
gccagcatct gccagagcgg ccccgccgct gcccgtgtg cgcgcgacct ttcggcanaa 660
cgcgctgtct ttcaccangc gcggggcgac cccttgggga caacctntga ccttg 715
```

<210> 3615

<211> 733

<212> DNA

<213> Homo sapiens

<400> 3615

```
aactattaca tattgcggcg tcacagggac acgcagagtg tctacagcac ctactttctt 60
tgatgggaga agactgcctc aatgagcgca acactgagaa gttgactcca gcaggcctgg 120
ccattaagaa tggtcagttg gagtgcgtac gctggatggt gagcgaaaca gaagccattg 180
cagaactgag ttgttctaag gatcttccaa gccttattca ttacgcaggt tgctatggcc 240
aggaaaagat tcttctgtgg cttcttcagt ttatgcaaga acagggcac tcgttggatg 300
aagtagacca ggatggcaac agtgccgttc acgtagcctc acagcatggc taccttggat 360
gcatacagac cttggttgaa tatggagcaa atgtcacat gcagaaccac gctggggaaa 420
```

agccctccca gagcgccgag cggcaggggc acaccttggtg ctccaggtac ctggtggtgg 480
 tggagacctg catgtcgtg gcctctcaag tggatgaagt aaccaagcag ctaaaggaac 540
 aaacagtaga acgtgtcag ctgcagaacc aactccaaca atttctagaa gccagaaat 600
 cagagggcaa gtcactccct tcttcaccca gttcaccatc cccacctgcc ttcagaaagt 660
 cccagtggaa atctncagat gcagatgatg attcttgtag caaaagcaag ccaggagtnc 720
 aagangggat tca 733

<210> 3616

<211> 860

<212> DNA

<213> Homo sapiens

<400> 3616

atgagagaga tgttgttgca cagcaggaat ccattttggc tttggaaaaa ttcctactc 60
 cagcatctcg gcttgactc actgatatat tagaacaaga gcagtgtttc tacagagtaa 120
 gaatgtcagc ttgcttctgt cttgcaaaga ttgcaaattc aatggtgagc acatggacag 180
 gaccaccagc catgaagtca ctcttacta ggatgttttg ttgtaaaagt tgtccaaaca 240
 ttgtgaaaac aaacaacttt aagagctttc aaagctatct tctacagaag actacgccag 300
 ttgcaatggc tttattaaga gatgttcata atctttgtcc taaagaagtc ttaacattta 360
 ttttagactt aatcaagtac aatgacaaca ggaaaaataa gttttcagat aactattatc 420
 gtgcagaaat gattgatgcc ctggccaact ctgttacacc tgcagtcagt gtgaataatg 480
 aagttagaac tttggataac ttaaatacctg atgtgcgact cattcttgaa gaaatcacca 540
 gatttttgaa tatggaaaaa cttcttccga gttacaggca taccatcact gtcagttggt 600
 tgagagccat acgggtactt cagaagaacg gacatgtgcc aagtgatcca gctcttttta 660
 aatcttatgc tgaatatggc cactttgtgg acattaggat agcagctttg gaagcagttg 720
 gtgattatac taaagtgggc cagaagttat gaagaactgc aattggctac ttaatatgat 780
 tcaanaatga ccctgtaccc tatggtaagg cntaagatct tnaacatggt ggacttagaa 840
 cccaccattt acttaagaac 860

<210> 3617

<211> 712

<212> DNA

<213> Homo sapiens

<400> 3617

```
gtgcaatttg tagaggctgc agcacacgag agtgaacagc agaaagaggc ttcttgghaa 60
cataaccagg aattgcghaa agccttgagc cagctacaag aagtattgca gaataagagc 120
caacagcttc gtgcctggga ggctgaaaaa tacaatgaga ttcgaaacca ggaacaaaaac 180
atccagcacc taaaccatag tctgagtcac aaggagcagt tgcttcagga atttcgggag 240
ctcctacagt atcgagataa ctcagacaaa acccttgaag caaatgaaat gttgcttgag 300
aaacttcgcc agcgaatacg tgataaagct gttgctctgg agcgggctat agatgaaaaa 360
ttctctgctc tagaagagaa agaaaaagaa ctgcgccagc ttctgtcttc tgtgagagag 420
cgagatcatg acctagagag actgcgcgat gtctctctct ccaatgaagc tactatgcaa 480
actatggaga gtctcttgag ggccaaaggc ctggaagtgg aacagttatc tactacctgt 540
caaaacctcc agtggctgaa agaagaaatg gaaaccaa attagccgttg gcagaaggaa 600
caagagagta tcattcagca gttacagacg tctcttcatt ataggaacaa agaagtggag 660
gatcttaatg caacattgct ctgcaacttg gccaggcana atgagatacn na 712
```

<210> 3618

<211> 813

<212> DNA

<213> Homo sapiens

<400> 3618

```
gttttggcgt tcagttatat ttacaaacca ccttgattat ttagctaaaa atggttatga 60
atatgaagag agcactaaaa atcaagcaac aaaagagcaa caggaaactt taatgaaaat 120
gcttgcgctt tcttgtaaac tggagcgaga attccgttgt gtggaacttg ctgatcta at 180
gactcaaaat gctgtgaatt tagccattaa atatgcttct cgctctcgga aattaatact 240
```

ggctcaaaaa ctaagtgaac tggctgtaga gaaggcagcc gaattgacag caacccaggt 300
 ggaagaggaa gaagaagaag aagatttcag aaaaaagctg aatgctggtt acagcaatac 360
 tgctacagag tggagccaac caaggttcag aaatcaagtt gaagaagatg ctgaggacag 420
 tggagaagct gatgatgaag aaaaaccaga aatacataag cctggacaga actcgttttc 480
 caaaagtaca aattcctctg atgtttcagc taagtcaggt gcagttacct ttagcagcca 540
 aggacgagta aatcccttta aggtatcagc cagttccaaa gaaccagcca tgtcaatgaa 600
 ttcagcacgt tcaactaata ttttagacaa tatgggcaaa tcatncaaga aatccctgca 660
 cttagtcgaa ctacaaataa tgaaaagtct nccattataa gcctctgttc caaagccgaa 720
 cctaacagca tntgcagcat ctattcagaa agaatctaac tataactgng agtgaagaag 780
 aaatttaaag ttattgaacc ctttgccttc aan 813

<210> 3619

<211> 628

<212> DNA

<213> Homo sapiens

<400> 3619

ccactacctc tagactgccc tcccgggctg gcgtcccacg gagtctcagc cgcgcacccc 60
 ttctctcggt taccctcctt ccggacagca cccctccct tctccggtag ctctacccc 120
 tgcctgtgcg ggcctcgctc ccgcgcccag ccctcggtgc tgcctccgac agcgccgcgc 180
 tctctcagcc gccccctgc ccctcgggcc cccctctctg ctgccccctgg cgccatggcg 240
 tgcagcctca aggacgagct gctgtgtctc atctgcctga gcattctacca ggaccggtg 300
 agcctgggct gcgagcacta cttctgccgc cgctgcatca cggagcactg ggtgcggcag 360
 gaggcgcagg gcgcccgcga ctgccccgag tgccggcgca cgttcgccga gcccgcgctg 420
 gcgcccagcc tcaagctggc caacatcgtg gagcgctaca gtccttccc gctggacgcc 480
 atctcaacg cgcgccgcgc cgcgcgaccc tgccaggcgc acgacaaggt caaagctcct 540
 ctgctcacgg accngcgct tctctgcttc ttctgcgacg aagcctgcac tgcacgagca 600
 gcatnaggtc accngcattg acgaaccc 628

<210> 3620

<211> 668

<212> DNA

<213> Homo sapiens

<400> 3620

```

tgaggcaagc gcctcaggag tgcgtgaggc ccacgcagaa ctcggggagc cttttatcct   60
gaggacacag gggaagaatt ggaggactat attcagctgc gggcgcttac ctgccccccc  120
tgcagcaggt gttccaggca cctcgccggc ctggcattgg cactgtgggg aaaccaatca  180
agctcctggc caattacttt gaggtggaca tccctaagat cgacgtgtac cactacgagg  240
tggacatcaa gccgataag tgtccccgta gagtcaaccg ggaagtgggt gaatacatgg  300
tccagcattt caagcctcag atctttgggt atcgcaagcc tgtgtatgat ggaaagaaga  360
acatttacac tgtcacagca ctgcccattg gcaacgaacg ggtcgacttt gaggtgacaa  420
tccctgggga agggaaggat cgaatcttta aggtctccat caagtggcta gccattgtga  480
gctggcgaat gctgcatgag gccctggcca gcggccagat ccctgttccc ttggagtctg  540
tgcaagccct ggatgtggcc atgaggcacc tggcatccat gaggtacacc cctgtgggcc  600
gtccttcttc tncgggctga gggctactac caccgcttg ggggtggccc cangtctggn  660
tcggcttt                                     668

```

<210> 3621

<211> 629

<212> DNA

<213> Homo sapiens

<400> 3621

```

ntccagcgtc tgccgcggct ccgagggggt ggggctgctg ggaatggctg tgcccccttc   60
ggccccctcag cagcgcgcgt cctttcncct gaggaggcac acgccttgcc cgcagtgtc  120
atggggcatg gaggagaagg cggcggccag cgccagctgc cgggagccgc cgggcccccc  180
gagggccgcc gccgtcgcgt acttcggcat ttccgtggac ccggacgaca tccttcccgg  240

```

ggccctgcgc ctcattccagg agctgcggcc gcattggaaa cccgagcaag ttcggaccaa 300
 gcgcttcacg gatggcatca ccaacaagct ggtggcctgc tatgtggagg aggacatgca 360
 ggactgcgtg ctggtccggg tgtatgggga gcggacggag ctgctgggtg accgggagaa 420
 tgaggtcaga aacttccagc tgctgcgagc acacagctgt gcccccaaac tctactgcac 480
 cttccagaat gggctgtgct atgagtacat gcagggtgtg gccctggagc ctgagcacat 540
 ccgtgagccc cggcttttca ggttaatcgc cttanaaatg gcaaagattc atactatcca 600
 cgccaacggc agnctgccaa gcccatnct 629

<210> 3622

<211> 700

<212> DNA

<213> Homo sapiens

<400> 3622

accatcctcc tgggcgccgc ttctgcgcgg cggcggcggc tgcggcgggg tctttctttg 60
 cttaaatacc tcgttggcca gaagcgcctg taccgggggc gggttgggtc gggtcgggca 120
 gtgctgcaca cctgggtttc cttgcctaga gctgtgtgtt cggggtcctt tgggtccagtc 180
 ggaggctgcg gagcggcggg ggttgcctgc gctgtccgcc cgggcatcct cccggtgatg 240
 gaagcagccg ccgccgccgc tgcggggctc cgctgtgccc cattcaccgc tgccagagag 300
 gtgggaaaat tcgccgcacg gaggccgaaa gcgagagggg ctgcgccgct atgccgggag 360
 ctgagtccca tataagccgc cccagccat cgcgccagc cggcttcgtt cccctgagcg 420
 agacaggaag ctgcggtccc gagaaagcgg aggagacgtc gctggagccg ggaggcgccg 480
 ggttcggcgg agcgcggagc ggggctcttg gccgcgtgaa agtttttctt cccgagccgc 540
 agggcgcccc ctgcccggaa actgcccagg gataagtcgg ccgacttccc agaccctcgc 600
 aaggtgcggg gacccccagc ggaagcgaga gggaaccgaa aatcgangaa cgagttgaca 660
 gcccggacag tnccgccng gccggtgatc ccggggcccc 700

<210> 3623

<211> 848

<212> DNA

<213> Homo sapiens

<400> 3623

```

agagtggcgc ggggggcgtg gggcggtgct gaggagctga agccgtggcc agctcgacgc 60
cggacagtcc agcgagcagc acggcgggaa ccggcagccg gagcagtcgc ggagcagaag 120
cagcagcagc agcagcagcc ctgcgccgtt gcggagcgca gccgagccgg ccatggcggt 180
gtcgatgcca ctgaatgggc tgaaggagga ggacaaagag cccctcatcg agctcttcgt 240
caaggctggc agtgatgggt aaagcatagg aaactgcccc ttttccaga ggctcttcct 300
gattcttttg ctcaaaggag ttgtatttag tgtgacgact gttgacctga aaaggaagcc 360
agcagacctg cagaacttgg cccccgggac ccaccacca tttataactt tcaacagtga 420
agtcaaaacg gatgtaaata agattgagga atttcttgaa gaagtcttat gccctcccaa 480
gtacttaaag ctttcaccaa aacaccacga atcaaatact gctggaatgg acatctttgc 540
caaattctct gcatatatca agaattcaag gccagaggct aatgaagcac tggagagggg 600
tctcctgaaa accctgcaga aactggatga atatctgaat tctcctctcc ctgatgaaat 660
tgatgaaaat agtatggagg acataaagtt ttctacacgt aaatttctgg atggcaatga 720
aatgacatta gctgattgca acctgctgcc aaactgnata ttgtcnaggt ggtggncaaa 780
aaaatatcgc aacttttgat atttccaaaa gaaatgactg gcactctggag atcctaacta 840
atgcatac 848

```

<210> 3624

<211> 479

<212> DNA

<213> Homo sapiens

<400> 3624

```

ggttttatcct aaattactca accccttgta gccttgacaa attttacctt aaaaccaa 60
tgaaacacaa aaattaatcc ttaataatga tagcaagtga tctttctttt tagnttttagc 120
cttccttttt caatagtaat atttaaacc acccttgacc aattggttgc ccaaatattc 180

```

ttgtcatttg gagtcagtgg aaaatccagc acaccaagca ccagtccttct tctgaggcaa 240
aagaaaagtg ttgtcatttt cactctgttg gagctgcaca ctttttttct ttttcttttt 300
ttttttttgt cngtaagaa ggatgctggc cagagctgca naaaatatga ggcaattaaa 360
agtcttttagc tgtagcaaaa cctgttagtt ttacttctgc nttgaaccag cctcagaagc 420
tacttactgc tttatgtact ctttgggcat taatgccttc tntgtaatta tatctnggt 479

<210> 3625

<211> 750

<212> DNA

<213> Homo sapiens

<400> 3625

ttttagattt tgaaatttag ggataatagc tcttaggttt gggtaccact ttgctgcagt 60
ttaagaaagg gggaaggga ctcatttatt aaacatcaat cacgtgctgt gttctgtttg 120
ttttctagtc atcatatcac acacctttac gacagctcac tgaaggaagg tgatactgtt 180
cccattttgt agatggaata gacaaaacct gaatttaagt agcttgctca aggttccata 240
ttgaatatgg aaagttcaaa tcatctcagt aatgaatata ccatatatac ttgctgtatt 300
gtatctatga taattcagtt acccacaata cccttttaaa tttctgttaa tgacatacct 360
ttaaatgtct ccttgatgaa cagaatcatg gtcttttaaaa acattttcat gggttgattg 420
cattttcaag ctctaaagga ttgaaagata aatcttcacg ttaaagggtga gagtgaagta 480
tctgctcttg gggtacagaa ccagatagta ctagaactaa gattacaggg taaagctgct 540
tttatctttt ttctttttct ttttcttttt tttttgacat ggggtctcac tgtattgccc 600
aggcttgga tgcantggca tgatctcagc tcacggcagc ctctgcctct tgggctcaag 660
cgattctcct gcttcagctt tccaagtatt tgggaccaca ggcgccacca caggcctggc 720
taatggtttt gggttgnttt tgggtananac 750

<210> 3626

<211> 879

<212> DNA

<213> Homo sapiens

<400> 3626

```

agcatcgagt cggccttggt gcggaacgga accactgggc cgcagcgacc acaggggagt 60
tcttcgccgg ccgcagggtc aaagcgatct gcaatgagcg cctttaggaa ttcattcgaa 120
ggcgcaaaag aaaaaagaaat taaggcagga actgagcgag gaaggaaggg agggaaagaa 180
aggaagaaag agaaaaagag aaagaaacag aaagaacagg caaaagctga aagggtcatg 240
ggaggaggct gctggttcca gtgaatggcg ctgacccac tgagatcaac accttgctgg 300
aggcctcaaa cactgaaaga aagacatgca aaggaaataa ttcaggacca actggtgggc 360
tccaaaaatc tcttctatga ggaagggtgaa tgcaggctct gctacgtcct gcctgtgaaa 420
gaatcccttc aggaaccag agcttccctc gtttaccttt tctcctacaa agggaagcag 480
cctggaagaa agagtccagt acttgaccca tgcctcaaca aactctgcta tcaatatggt 540
gcagcttacc aaaggtccta gaactttgtc aacgcacttg gagtaatttt tatgaaatat 600
tgtgtgtgat aagcaaactg tggaaattta tataagatgt tgggtggcata gagttatacg 660
attngtatt aagggtagtt ttangatgtc attttttttt cagttcatca tgacagaagt 720
cctttttatg aganaaagtc ccatgagaaa aaaactttct tatattggga agctncttct 780
aataggggga tgggccattt aatggccttc cacttaagat gggggtaata nccccggggg 840
gttggtttta aagtttttta acttttaaate ngggttaan 879

```

<210> 3627

<211> 703

<212> DNA

<213> Homo sapiens

<400> 3627

```

aggtctgagg gagcgatggc ggtacgcgcg ttgaagctgc tgaccacact gctggctgtc 60
gtggccgctg cctcccaagc cgaggtcgag tccgaggcag gatggggcat ggtgacgcct 120
gatctgctct tcgccgaggg gaccgcagcc tacgcgcgcg gggactggcc cggggtggtc 180
ctgagcatgg aacgggcgct gcgctcccg gcagccctcc gcgcccttcg cctgcgctgc 240

```

cgaccccagt gtgccgncga cttcccgtgg gagctggacc ccgactggtc ccccagcccc 300
 gcccaggcct cgggcgccgc cgnccctgcgc gacctgagct tcttcggggg ccttctgcgt 360
 cgcgctgcct gcctgcgccg ctgcctcggg ccgncggccg nccactcgct cagcgaagag 420
 atggagctgg agttccgcaa gcggagcccc tacaactacc tgcaggtcgc ctacttcaag 480
 atcaacaagt tggagaaagc tgttgctgca ncacacacct tcttcgtggg caatcctgan 540
 cacatggaaa tgcagcagaa cctagactat taccaaacca tgtctggagt gaangaggcc 600
 gacttcaagg atcttgagac tcaaccccat atgccaagaa tttcgactgg gagtgcgact 660
 ctactcanan gaacagccac aggaagcttg tgccccacct ana 703

<210> 3628

<211> 720

<212> DNA

<213> Homo sapiens

<400> 3628

ttcattgagt cttctgttgc caaattaaat gccctgagga aaagtggcca gttctgtgat 60
 gttcgacttc aggtctgnng ccttgaaatg ttagcacaca gagcagtgct agcttgctgc 120
 agtccctatt tatttgaaat ctttaatagt gatagtgatc ctcatggaat ttctcacgtt 180
 aaatttgatg atctcaatcc agaagctggt gaagtcttgt tgaattatgc ctacactgct 240
 canttgaaag cagataagga attggtaaaa gatgtttatt ctgcagcaaa aaagctgaag 300
 atggatcgag taaagcangt ttgfggtgat tatttactgt ctagaatgga tgttaccagc 360
 tgcattctctt accgaaattt tgcaagtngt atgggagact cccgtttgtt gaataaggtt 420
 gatgcttata ttcaggagca ttgtttacaa atttctgaag aggaggagtt tcttaagctt 480
 ccaaggctaa agttggaggt aatgcttgaa gataatgttt gcttgcccag caatggcaaa 540
 ttatatacaa aggtaatcaa ctgggtgcag ccgtagcatc tgggagaatg gagacaatct 600
 ggaagagctg atgggaagag gttcaaacct tgtctactca gctgatcaca agctgcttga 660
 tgggaacctt ctagatggac agggctgang ntgtttggcc antgatgatg accacattca 720

<210> 3629

<211> 847

<212> DNA

<213> Homo sapiens

<400> 3629

```

aggagaagct gatgaagagc tagttgatga tggagaagat cagaatgac cctctcgatg   60
ggatgaatca ggagaagttt gtatgtctct agatgattaa ctgacctact atactcctca  120
aggatgctgc atttggacct aatatgaatc gacaatttgg attgttgaac ttgaaggctt  180
gcaaaatatg gtacatgctg gatagtagtt atgttgctgt gaaaactgta ggggtcaaagc  240
cttatagcaa aaaaaatttt tttttatatt tgcacaggac tatacagcaa acaacctatgt  300
ggttggatta catggagtcc ccacatactc agtcagttat caaagtaaaa tattttttat  360
ttataggata tacagtaact atttgggtcc tatgaaaata gtccttaaag agcttacatt  420
catgtgctac tttaacatga atggagaaaa tccgtttatg gaagtacagt gacaattgac  480
ccaatcactc tgtccatcaa accactcagg ctagtttgta ctagtagagt ttgttttcta  540
tttttatatt tattaatttt atttttttta atacagattt tcagtgaggg gctttttcaa  600
tcccatgggt tctattttct tgtatttttc catttaattt gcttcataac ttaaaccaag  660
tctcttctag tcttaggtat tatttctcga ttttgctgctg atgggcatgt ttataagaac  720
tggacttttt gacatgaatt ttactacttc acaaatgaag aatgatgnta tgaagtaccg  780
tggcgaagtt gacaatccct aaaatgatat gattaaaagt acttcttctg tgtctatcgg  840
taatggn                                         847

```

<210> 3630

<211> 773

<212> DNA

<213> Homo sapiens

<400> 3630

```

catgccccgc tgcagtagcc ctgagcccat ggctgacagg ctctgctca ccacccaac   60
ccaccgcttc cagtgc aaag ggccagtgga catcaacatt gtggccaaat gcaatgcctg  120

```

cctctccagc ccgtgcaaga ataacgggac atgcacccag gaccctgtgg agctgtaccg 180
 ctgtgcctgc ccctacagct acaagggcaa ggactgcact gtgcccatca acacctgcat 240
 ccagaacccc tgtcagcatg gaggcacctg ccacctgagt gacagccaca aggatgggtt 300
 cagctgctcc tgccctctgg gctttgaggg gcagcgggtgt gagatcaacc cagatgactg 360
 tgaggacaac gactgcgaaa acaatgccac ctgcgtggac gggatcaaca actacgtgtg 420
 tatctgtccg cctaactaca caggtgagct atgcgacgag gtgattgacc actgtgtgcc 480
 tgagctgaac ctctgtcagc atgaggccaa gtgcatcccc ctggacaaaag gattcagctg 540
 cgagtgtgtc cctggctaca gcgggaagct ctgtgagaca gacaatgatg actgtgtggc 600
 ccacaagtgc cggcacgggg ccagtgctg ggacacaatc aatggctaca catgcgcctg 660
 cccccagggc ttcantggac ctttctgtga acacccccca cccatggtcc tactgnagac 720
 cagccatgcg accagtcna gtgccagaac ggggccagtg gcatcgtggt gca 773

<210> 3631

<211> 834

<212> DNA

<213> Homo sapiens

<400> 3631

caaaaaaaaa aatggcggct gccactgtgg ggcttctgcc ggccggtagt ccctggcgct 60
 gctgaccag catcggttt tctacgtctt gaacctggat tcgcctaggg gttgggaagg 120
 gctgtggacg gcgttggggg aggctgacg agattaataa agaactcttc agaattcctg 180
 gtgtttcatc atatatacga ctaagatata aactcttcta gcttgcgtgt tctggaccaa 240
 aaaaaatgac gtctattatc aaattaacta ccctttctgg ggtccaagaa gaatctgccc 300
 tttgctatct tctccaagtt gatgagttta gatttttatt ggactgtggc tgggatgagc 360
 acttttctat ggatattatt gattccctga ggaagcatgt tcaccagatt gatgcagtgc 420
 tgttgtctca ccctgatcct ctccaccttg gtgccctccc gtatgctgtc ggaaagttag 480
 gtctgaactg tgctatctat gcaaccattc ctgtttataa aatgggacag atgttcatgt 540
 atgatcttta tcagtctcga cacaatacag aagattttac actctttaca ttagatgatg 600
 tggatgcagc ctttgataaa atacagcagc taaaattctc tcagattgtg aatttgaaag 660

gtaaaggaca tggcctgtct atcacacctc tgccagctgg tcatatgata ggtgggaaca 720
 atatggaaaa tagtcaaaga tggagaagaa gaaattgggtt atgcagttga ctttaaccnc 780
 caaganggag atccatttaa aatggatgtt cctggaaatg ctaaacaggn cttt 834

<210> 3632

<211> 773

<212> DNA

<213> Homo sapiens

<400> 3632

aaggaatcaa gcccccaaga tggcggcagc ggCggaggag cggatggcag aggaaggagg 60
 cggcggccaa ggCgacggcg gttcctcttt ggcctccggc tctaccagc gacagcctcc 120
 accgcccgcg ccacagcacc cgcagccggg gtcccaggcg ctcccagccc ccgcgctggc 180
 tccggaccag ctgcctcaaa acaacacgt tgtggcgctg cccatcgtag ccatcgagaa 240
 catcctcagc tttatgtcct acgacgaaat tagccagctc cgcctggttt gtaaaagaat 300
 ggacttggtc tgccagagaa tgttgaatca gggatttctg aaagtggaga ggtaccataa 360
 tctatgtcag aaacaagtta aagcacaact cccaaggaga gagtcagaaa ggagaaacca 420
 ttcattagct cgtcatgcag acattcttgc tgctgttgaa acaaggctgt cactattaaa 480
 tatgactttc atgaaatatg tggattccaa tctctgttgc ttcatcccag gaaaggtgat 540
 tgatgagatt tatcgtgtgt tgagatatgt caattctacc agagcccctc aacgagctca 600
 tgaagtactt caagaattaa gggatatatc ctctatggca atggagtact ttgatgaaaa 660
 gatttggtcca attttaaaga ggaaattacc aggatcagat gtttctggaa gactcatggg 720
 ctcttcttca gttnCaggaa ccgtctgcag cctaacaaca atgcagctnt tnt 773

<210> 3633

<211> 780

<212> DNA

<213> Homo sapiens

<400> 3633

```

ggaagctggt ggcggctggt gggcgaccgg gcgcacccctc attgcagtgc ggcggcccta 60
cctcggccct ggcctgaccc cggcgccctt gcccggccct cctccagca tcatggccag 120
cccaagaacc aggaagggtt ttaaagaagt cagggtgcag gatgagaaca acgtttgttt 180
tgagtgtggc gcgttcaatc ctcagtgggt cagtgtgacc tacggcatct ggatctgcct 240
ggagtgtctg gggagacacc gcgggcttgg ggttcacctc agctttgtgc gctctgttac 300
tatggacaag tggaaggaca ttgagcttga gaagatgaaa gctgggtggga atgctaagtt 360
ccgagagttc ctggagtctc aggaggatta cgatccttgc tggtccttgc aggagaagta 420
caacagcaga gccgcggccc tcitttaggga taagggtggtc gctctggccg aaggcagaga 480
gtggtctctg gagtcacac ctgcccagaa ctggacccca cctcagccca ggacgtgcc 540
gtccatggtg caccgagtct ctggccagcc gcagagtgtg accgccttct cggacaaggc 600
ttttgaggac tggctgaatg atgacctcgg ctccatcaa gggggccagg ggaatcgcta 660
cgtgggggtt gggaacacgc caccgctnag aagaaagaag atgacttct taacaacgcc 720
atgtccttcc ttgtactcgg gctggaacag ctnaccact ggagccagcc cgtttgcct 780

```

<210> 3634

<211> 765

<212> DNA

<213> Homo sapiens

<400> 3634

```

aattcatggg acttatataa gaaggacaat taatgctgat ttgggtacag gggaattatg 60
tgtgtgaatg tcatctacaa ttaaaaaaaaa ttagcacatc cctttactta cttgttatca 120
gtggattctc ggggtttgga cttaatgttg agctaagaag cattaagtct ttgaactgaa 180
tgtattttgc atccctggtt ttggacgaca gtaaacgtag gagcactgtt gaagtcctgg 240
aaggagatc gaaggaggaa gattgacttg gttctttctt agtcctatat ctgtagcata 300
gatgacttgg aataaaagct gtatgcatgg gcattacccc tcaggtccta agaaataagt 360
cctgaatgca tgtcgttcca aactaacact ctgtaatttt tcttttatgt cttattttcc 420
aagatcctc cattttttgc accccctcac cgccaactct gttattcagt agagagaagt 480

```

gtacggcttt ctgattggtg agtgaaaaag taacttgaga cacgacctaa gttgaagagt 540
 ttagacttgc tgagttag aagtgatgga aattaagaga gcatttcaat aaaatgtgac 600
 ttggctgtct ttggaagaga agtgcaaggc tttcctttga agaatttaaa ttagtccggt 660
 aggatgtcag gtgagactgt gtatgcaaaa tgaatggcac angtgatgcc agggcctctt 720
 gcttggggtc tgagtcttgg cacanggtaa gtgaanggta atttc 765

<210> 3635

<211> 782

<212> DNA

<213> Homo sapiens

<400> 3635

catttggccc ggggatggtc acacgcgcgg gggccggaac tgccgtcgcc ggcgcggtcg 60
 ttgtcgcat gctctcgcc gcactcgcc tgtacggcc gccactggac gcagtttag 120
 aaagagcgtt ttcgtacgt aaagcacatt cgataaagga tatggaaaat actttgcagc 180
 tggtagaaaa tatcatacct cctctgtctt ccacaaagca caaagggcaa gatggaagaa 240
 taggcgtagt tggaggctgt caggagtaca ctggagcccc atattttgca gcaatctcag 300
 ctctcaaagt gggcgcagac ttgtccacg tgtctgtgc cagtgcggcc gcacctgtga 360
 ttaaggccta cagcccgag ctgatcgcc acccagttct tgacagcccc aatgctgttc 420
 atgaggtgga gaagtggctg ccccggtgc atgctcttgt cgtaggacct ggcttgggta 480
 gagatgatgc gcttctcaga aatgtccagg gcattttgga agtgtcaaag gccagggaca 540
 tccctgttgt catcgacgcg gatggcctgt ggctggtcgc tcagcagccg gccctcatcc 600
 atggctaccg gaaggctgtg ctactcccg accacgtgga gttcaacang ctgtatgacg 660
 ctgtgtctcaa aggccctatg gacagcgatg acagccatgg atctgngcta agactcagcc 720
 aacccttggg caacgtgacn gtggtccaaa aaggagagcg cgacatcttt tcaacgnca 780
 ca 782

<210> 3636

<211> 888

<212> DNA

<213> Homo sapiens

<400> 3636

```

agtgtccata aacctgtgtt ttgccagctt gcacaggatg aaggtagtta cgttggtggc 60
tttgcagtgg ttgaatatag cactgcggag caggctgaag aggtccagca ggcagcagac 120
ggtatgacca tcaagggcag caaagtccag gtttccttct gtgctcctgg agcgccaggg 180
cgaagtacat tagcagcatt gatagcggct caacgtgtga tgcacagtaa tcaaaagggc 240
ttacttccag agccaaatcc agtacaaatt atgaaaagtt taaacaaccc tgccatgttg 300
caagttcttc tacagcccca gttatgtgga cgagctgtta aaccagccgt tcttgaaca 360
cctcacagct tgccacatct gatgaaacca tccatctctc ctgcattttt acatttgaat 420
aaagcacatc agaatctttc tcatatacca ctggcacaac aacaattaat gaagtttgag 480
aatattcata ctaataataa acccggttta cttggagagc cccagctgt ggtacttcag 540
actgcactag ggatagggtc agtgcttcca ttgaaaagg agttgggaca tcatcatgga 600
gaagcacata aaagctgcct ctaagaatca aacttcactc ttgggagAAC caccaaaga 660
aattcggctc agtaaaaatc catacttgaa tttggcaagt gtgttgccca gtgtgtgctt 720
atcatccctt gcaagtaaaa ccactcttca taagactgga attgcaagca gcattctgga 780
tgcaatcttt tcagggaagt gaatcacaac acgcattgga aaagtgcatt gcttatcttc 840
accttttggg gatatgcnca ggtaaataat tncaggttc ttgatgat 888

```

<210> 3637

<211> 676

<212> DNA

<213> Homo sapiens

<400> 3637

```

atgtcagggt caaggaaagg acccttccgt ggacatcact caggaccttg tggatgaatc 60
tgaagaggag cgttttgatg atatgtcatc gccaggctta gaattgccat cttgtgaatt 120
aagtcgcctt gaagaaattg cagaacttgt ggcacatctt ttaccttcac ctcttcgtcg 180

```


tgaaaaactt gcactggcac tagaaaatga gggttatatt aaaaagctcc tggagctttt 240
 tcatgtgtgt gaagatttgg aaaatattga aggactgcac cacttgtatg aaattatcaa 300
 aggcacatctt ctcttgaatc gaactgctct ttttgaagtt atgttctctg aagaatgtat 360
 aatggacgtc attggatgtt tagaatatga tcctgcttta tcacaaccac gaaaacacag 420
 ggaatttcta acaaaaacag ccaagtttaa agaagtgtt cccatatacag atcctgagct 480
 gaaacaaaaa attcatcaag acatacagag ttcagtatat acaagatatg gttctaccaa 540
 ctcttcggt ctttgaagaa aacatgttat caacacttca ctcttttata tttttcaata 600
 aggnagagat tgggtggcatg ttgcaggaag atgaaaaatt tctgcagatt tggttgccca 660
 cttacagatg aacnnc 676

<210> 3638

<211> 786

<212> DNA

<213> Homo sapiens

<400> 3638

agtagtggtg gtacgggtcc gactgagggg tactcgccac cggctgcgtc caccgagcgc 60
 gctgcgagag ccaaggcccc aggggggtggg cgtggcggcc gccgaaacac aacccccctt 120
 gttccctctc ttcgcgagc ggcgccgcgt agcttccatc cgccagctgc catgagcgag 180
 cgcctccgtc ccaggaaaag gagaaggaat ggcaacgaag aagacaacca tcttcccccc 240
 cagacaaaaa gaagtagcag aaaccctgtc tttcaggatt cctgggacac agagtcttca 300
 ggcagtgaca gtggtgggag cagcagcagc agcagcagca gcatcaatag cccggacagg 360
 gccagcgggc cggaaggcag cttgagccag accatggccg gatccagccc taacacgcct 420
 cagcccgtgc ccgagcagtc cgcgctgtgc caaggcctct acttccacat caaccagacc 480
 ctgagggagg ccacttcca cagcctacag caccgagggc ggcctctgac atgatgtgcc 540
 ggcagtttct tgccttctgt gaaggacag cgctgtgcag atttgatatt tcaacttaca 600
 acttggttta aaagaaaaat tgccacgana aatgcctgtt ggcttttcag tctatatttg 660
 aaataacagg ttaacaggca gttgtttact tgnngggttg ctgcactatt gcaatttcna 720
 aggggctttg aacaattttt ataggattct ttttangga ggtattcaaa tctatgtcaa 780

ggtaat

786

<210> 3639

<211> 827

<212> DNA

<213> Homo sapiens

<400> 3639

```
gtggtaccaa agacctgtcc atcgtgcag tggggaagta cgggactctg caggaatttt 60
ctttctttga caaggtccgc cgggtgctga agagccagga ggtgtatgaa aacttcctcc 120
gctgcatcgc actcttcaac caggagctgg tgtctggctc tgagctcctg cagctcgtca 180
gcccatttct ggggaaattt ccagaactct ttgcacagtt caagtccttc ctgggggtaa 240
aagagctgtc cttcgcgcca cccatgagcg acagatccgg ggacgggata agccgggaaa 300
ttgattatgc atcctgcaag cgcataggat ccagctaccg ggcactcccc aaaacctacc 360
agcagcccaa gtgcagtggg aggacagcca tctgcaagga ggtactgaac gacacctggg 420
tctccttccc ttcctgggtct gaggactcca cgttcgtcag ctccaagaag acaccgtacg 480
aggagcagct tcaccgctgt gaggacgagc gcttcgagtt agacgttgct ctggagacga 540
acctggccac aatccgtgtg ttggaaagtg tgcagaagaa gctgtcccgg atggcgccgg 600
aagaccagga gaagttccgg ctggacgact ccctgggagg cacgtcggaa gtgatccanc 660
gccgtgccat ttatgcgcatc tatggcgaca aggccccgga gatcatcgag agcctcaaga 720
anaaccctgt caccggttgn ccccgttgtc ctgaaaagac tgaagggccca aggaaaaaga 780
attggcggga ngcccaacag ggctttaaca agatctggcg ggaaccn 827
```

<210> 3640

<211> 786

<212> DNA

<213> Homo sapiens

<400> 3640

tcaattttcc tttttccgga ggggagatgg attccctgga atggaactgg gctctggtgt 60
 atgagctcag tggagagcac catgacgaag agtggtcagt gaagacttac caggaagtag 120
 ctcagaagtt tgtggaaact caccctgagt ttattggaat caaaatcatt tattcggatc 180
 acagatccaa agatgtggct gtcacgcag aatccatccg aatggccatg gggctccgaa 240
 tcaagttccc cacggtggtg gcagggtttg acctggtggg gcatgaggac actggccact 300
 ccttgcata ctacaaggaa gctctgatga tccccgcaa ggatggcgtt aagctgcctt 360
 acttcttcca cgccggagaa acagactggc agggctacttc catagacagg aacattcttg 420
 atgctctgat gctgaacact accagaatcg gccatggatt tgctttgagc aaacaccccg 480
 cagtcaggac ttactcctgg aaaaaggaca tccccataga agtctgtccc atctctaacc 540
 aggtgctgaa actggtgtct gacttgagga accaccctgt ggccactctg atggccactg 600
 ggcaccccat ggtgatcagc tctgatgacc cagctatgtt tgggtgcaaa ggcttgcctt 660
 acgatttcta tgaggtcttc atgggcattg gggggatgaa ggctgacctg aggaccctna 720
 aacagctggn catgaactct atcaagtaca gtaccctgtt gganagtgag aaaaatactt 780
 tcatgg 786

<210> 3641

<211> 751

<212> DNA

<213> Homo sapiens

<400> 3641

ttttgtttgg gccttgggca atagggagca gccagtgat gactcagctc cccagggaga 60
 aagctgtctc agcagcccat acttcagggt gttagtcctg ccccttgga gctggttacc 120
 cagctagctc cctaaagtga gtactagagt tgtttggcct gtagtggtgg gtgtctcacc 180
 tcatgccctg ctttgtttcc ctggaatgtg aaggcccatg ccagctcagc ccagtattgc 240
 atagctactc agttcaggca aggcactgca tccccagagg gtaatgtgcc tcgtcagctc 300
 aggtctaggg tgtgtgacct taggttggcc caggcaccat tttcctggga tgcaggaagc 360
 tgcttcagat taggtactgg actgtgtgtc tgcttgggat ggccaagaca ctgttacctg 420
 gaaggcaggg tggtaggtag ggtgctgctt aaacttaggc actggggagg catgactgct 480

ctcgatggcc aaagtactgt tttcccagga gacaaggtag tgcttcagct caggtacaga 540
 ggggtgtgac tgctctggat ggtaaatgca ctgttttccc aggatgcctg gcattgcttc 600
 agctctggcc tagaggggca ggatgtagca gcatctggga ggggtaggtg gaggagcttc 660
 gccaaaggcat cctttcctca ggaggcaatg tgcanttca gctcaggtag ctggaagcan 720
 ggcanttttg ggagaagtag actgagaggt a 751

<210> 3642

<211> 865

<212> DNA

<213> Homo sapiens

<400> 3642

gatcttggct cactgcaacc accatctcct gggttcaagc gatcttccca ccttatectc 60
 ctgagtacct ggggctacag gcatgtgcca ccacgcctgg ctaatttttg tattttctta 120
 gtagagatgg ggttttgcca tgttggtccg gctgggtcaca aactccaggg ctcaagcaat 180
 ccactcactt cagcttccca aagtgtctggg attacaggca tgagccacaa caccagccc 240
 tttatataat tttaaaagt taggtaatta ggtaaaatta ggttaaaagt atatgtatat 300
 ttacctgata tttaaatatt acctaatgt ttaatgtgga catgtaagct ctttaaagat 360
 agtgcttatg tattttatat ctgtttcaca tactccttat atatcccca cagaaatggt 420
 cacaaatagg ttccttaata agtatttttg aattcagcca tgctatatat tcattagtaa 480
 gtgagttttc ttttattatg aactacaaac ttttaacctt ttttgagtag tgagcagtta 540
 ttcatttacc ttcacactct ttaaatacca aattttgagt gagtgagtgt gtaaggtttt 600
 gtcatacaga cttgcaattc ctatatggga taaagtagac tagcacagga atttttcttg 660
 tatcactcat gcaagactct aaattcctta aaggcaggga tcatgtatat tttgatcact 720
 ggtgnatcct cagcacttca catggtgcct gtcacataaa tatttggtta atgacttctt 780
 caagcaatag ctttggcttt atgggtatcct ggatttcaaa acgtcatata taaattctct 840
 cactatgact tgntcatang gncta 865

<210> 3643

<211> 818

<212> DNA

<213> Homo sapiens

<400> 3643

```

cttccttcgt cccttccttc cttcctttcg ccgggcgcga tggagccggg gcgccggggg 60
gccgcggcgc tgctagcgct gctgtgcgtg gcctgcgcgc tgcgcgccgg gcgcgcccaa 120
tacgaacgct acagcttccg cagcttccca cgggacgagc tgatgccgct cgagtcggcc 180
taccggcacg cgctgggcaa gtacagcggc gagcactggg ccgagagcgt gggctacctg 240
gagatcagcc tgcggctgca ccgcttgctg cgcgacagcg aggccttctg ccaccgcaac 300
tgcagcgccg cgccgcagcc cgagcccgcc gccggcctcg ccagctatcc cgagctgcgc 360
ctcttcgggg gcctgctgcg ccgcgcgcac tgcctcaagc gctgcaagca gggcctgcca 420
gccttccgcc agtcccagcc cagccgcgag gtgctggcgg acttccagcg ccgcgagccc 480
tacaagticc tgcagttcgc ttacttcaag gcaaataatc tccccaaagc catcgccgct 540
gctcacacct ttctactgaa gcatcctgat gacgaaatga tgaagaggaa catggcatat 600
tataagagcc tgctggtgcc gaggactaca ttaaagacct ggaaaccaag ttcatatgaa 660
aagcctgttc atccgancag tgcgggcata caacggtgaa aactggagaa cattcatcac 720
agacatggaa ctggccccctt tccgaatttc ttcaaaagnc ttttacgaat ggtcttgcac 780
cctggcgaag ggttncaagg gaagaatcaa gggacttt 818

```

<210> 3644

<211> 773

<212> DNA

<213> Homo sapiens

<400> 3644

```

ccctaataca gtaccccttc ctctccacc acctcctgcc ccacccctcc ctgcatctgg 60
attctttttg gcatccatgt cagaagacaa tcgcccttta actggacttg cagctgcaat 120
tgccggagca aaacttagga aagtgtcacg gatggaggat acctctttcc caagtggagg 180

```

gaatgctatt ggtgtgaact ccgcctcatc taaaacagat acaggccgtg gaaatggacc 240
 ccttccttta gggggtagtg gtttaatgga agaaatgagt gccctgctgg ccaggaggag 300
 aagaattgct gaaaagggat caacaataga aacagaacaa aaagaggaca aaggtgaaga 360
 ttcagagcct gtaacttcta aggcctcttc aacaagtaca cctgaaccaa caagaaaacc 420
 ttgggaaaga acaaatacaa tgaatggcag caagtcacct gttatctcca gaccaaaatc 480
 cacaccctta tcacagccca gtgccaatgg agtccagacg gaaggacttg actatgacag 540
 gctgaagcan gacatttttag atgaaatgag aaaagaatta acaaagctaa aagaagagct 600
 cattgatgca atcaggcagg aactgagcaa gtcaaatact gnatagagga acagactaag 660
 gagagatagg actttaatct ggangaataa tctcctacaa acaacaactg gtcacaacag 720
 cnaaccctta catttatgag ctgtaagaag aaaatggaga ccaacngaaa ggg 773

<210> 3645

<211> 872

<212> DNA

<213> Homo sapiens

<400> 3645

ctctttgccc tcgcgacgcc gccacctccg gaacaagcca tgggtggcggc gacggtggca 60
 gcggcgtagc tgctcctgtg ggctgcggcc tgcgcgcagc aggagcagga cttctacgac 120
 ttcaaggcgg tcaacatccg gggcaaacctg gtgtcgtctg agaagtaccg cggatcgggtg 180
 tccctgggtg tgaatgtggc cagcagagtc ggcttcacag accagcacta ccgagccctg 240
 cagcagctgc agcgagacct gggccccccac cactttaacg tgctcgccctt cccctgcaac 300
 cagtttgccc aacaggagcc tgacagcaac aaggagattg agagctttgc ccgccgcacc 360
 tacagtgtct cattccccat gtttagcaag attgcagtca ccggtactgg tgcccatcct 420
 gccttcaagt acctggccca gacttctggg aaggagccca cctggaactt ctggaagtac 480
 ctagtagccc cagatggaaa ggtggtaggg gcttgggacc caactgtgtc agtggaggag 540
 gtcagacccc agatcacagc gctcgtgagg aagctcatcc tactgaagcg agaagactta 600
 taaccaccgc gtctcctcct ccaccacctc atcccgccca cctgtgtggg gctgaccaat 660
 gcaaactcaa atggtgcttc aaaggagag acccactgac tctccttcct ttactcttat 720

gccattggtc ccatcattct tgtgggggaa aaattctagt attttgatta tttgaatctt 780
acagcaacaa ataggaactt ctgggcaatg agacttcttg accagtgaat caccagccga 840
tacgaacgtc ttgccaacaa aaatgtgtgg ca 872

<210> 3646

<211> 523

<212> DNA

<213> Homo sapiens

<400> 3646

gatgtagctc gcagagaaga gcaggagcag aattagccct ttcttcaggc catcttgcct 60
caaagggtac acatgtttgg cggttaagat gaaactaacc cttatgtttc atcctggccc 120
catgatgtac acatcttagc catgtagtgg ccttgggggg ccacagagat ttcctttgag 180
gagcatggta gaggccacag ccatggctga agtcagtgga caccgagggg acaggactgc 240
aggccaccag gggcctctgc ccagagggag gcagagagga tggcgggccac ggggtgctctc 300
ctggcatcct catgggggtga tgccaggccg ggcacttcaa aacaggctca gccgactggg 360
agatcctttg tactttgcac agttcacaca cacaacaca cacaccctat cccaagtgtt 420
tttgtttagac acaaatgtca gcgtgtgatt ttggaagact tgtcagtgat gacaaaccat 480
gatgcctgtg tttctgagtc tttaaataaa aatgaacatg gag 523

<210> 3647

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3647

tgtgccttct ctttcggagt tgttccgtgc tcccacgtgc ttccccttct ccactggctg 60
ggatcccccg ggctcggggc gcagtaataa tttttacca tgcatcgga aaaggtggat 120
aaccgaatcc ggattctcat tgagaatgga gtagctgagc ggcaaagatc tctccttggt 180

gtagttgggg atcgaggaaa agatcagggtg gtaatacttc atcacatgtt atccaaagca 240
 actgtgaagg ctccggccttc agtgctgtgg tgttataaga aagagctggg gtttagcagt 300
 caccggaaga aaagaatgcg acagctgcag aagaaaataa agaattggaac actgaacata 360
 aagcaggacg acccctttga actcttcata gcagccacaa acattcgcta ctgctactac 420
 aacgagaccc acaagatcct gggcaatacc ttcggcatgt gtgtgctgca ggattttgaa 480
 gccttaactc caaacttgct ggccaggact gtagaaacag tggaagggtg tgggctagt 540
 gtcacctcc tacggaccat gaactcactc aagcaattgt acacagtgc tatggatgtg 600
 cattccaggt acagaactga ggcccatcag gatgtggtgg gaagatttaa tgaaagggtt 660
 attctgnctc tggcctcttg taagaagtgn ctgctcattg atgaccagct taacatnctg 720
 ccatct 726

<210> 3648

<211> 861

<212> DNA

<213> Homo sapiens

<400> 3648

ggtggcggtg caaccgtcat gtggagagca tcgacaagcg ccactgctcg ctggtctacg 60
 tccccgagga gatctaccgc tatgcccgga gcctggagga gctgctgctg gacgccaaacc 120
 agctccgcga gctgccccgag caatTTTTcc agctagtcaa attacgaaag cttggactta 180
 gtgataatga aattcagcgg ctccctccag aaatagcaaa ctcatgcag ctggtggaac 240
 tagatgtgtc tcgaaatgag attcctgaaa ttccagaaag catttcattc tgtaaagcac 300
 tgcaggtagc tgacttcagc ggaaacccac tgactaggtt gccagaaagc tttcctgaat 360
 tacagaattt aacatgtctt tctgtaaatg acatctcact acagtctcta cctgaaaata 420
 ttggcaatct ttataacctg gcttccactgg aactgagaga gaatcttctt acatatcttc 480
 ctgactctct taccagctg cgaagactag aagaacttga tttaggaaac aatgaaatat 540
 ataatttgcc agaattacat ggagccctct tacatctaaa agatctctgg ttggatggaa 600
 atcaactgtc agaattacct caggaaatag gaaatctgaa gaacctgctg tgtttagatg 660
 tctctgaaaa caggttggaag agacttcctg aagaaatcag tggcctgact tcattaacgg 720

atttagtcat ttcccagaac ttattagaaa cgattccgga tggattggaa aactaaagaa 780
ctgncaatct tgaaggngga tcagaataga cttacacagt tgnctgaagc agttggggga 840
tgtgaaagtc ttactgggtt a 861

<210> 3649

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3649

tggaaaaggc ggCggCggcG gcggCggcag cggcagcagc aggtggagcg agctacagcg 60
tttggcctga aaccactgc tgcagccacc cgggctggag ttggcccggt gggtggagcc 120
agtgtctgcc ccggtccgac ccccggtttc cgggacactt gggttgcgga ggccggctgg 180
ccggagtcac ggttggggac gggcgcgcct cggagcgcac ggctgcgctg gaagccgcgt 240
ctggggcgca ggaccaacgg gacctacctc ctcccggtta cctaaagact ctttctctcg 300
ggaaagagcg ctgcccggct ctgggatttg ggaggagctc ggaggccgct cgggcacctc 360
gctggacact atccgtttgc gcccgggtgg cgCgggaggg tccggagcgg agcgctcgtc 420
tctcctcagc ggtttagtgg agaaaagcag agagctcttc ctggggcgaa tgggacctcc 480
tccctcggtc ctccgtggag tcgtcgcacg gcttgtcgtg ttggtctcga ggggctcaca 540
gcttggcact aatttgcagg tgttcgctgc tgatttggtt tcttcttcga tttgcggacg 600
gttcccttca gcgactctcg acacacgttt tcctgtcttc gccgganggc cgggtctggg 660
gtcgccggac ctgcgggaat ccagcgctta ttcgctgacc ctcgagtcgc ttcgctagct 720
gtgcgcctct gggcactacc tggaaggagc tgcaaccgn tcttgaggat ncgtcttagg 780
agcatcgctc taaggctttt gcttgtgtgg atggtcgcgc atgcttattn 830

<210> 3650

<211> 689

<212> DNA

<213> Homo sapiens

<400> 3650

```
gtgcagaacc tttgcctcct ggccagaggg acccttctgc aggctgattc cagcagtgcc 60
cgatggtggg acccacacca gaccaagcct tcgcctccca gaggcctcct ggccctcctg 120
tcatggcctg tgagagccac acccctaggc cccgtctcct agtctgcagg ccgcaggacc 180
agctgccac ggccccaggg ggcaagggt gtagatgagg gtctcagagg tgggtgggagc 240
accccccca cccacagttc ctgggcattt ctttagagct ttaaaatggc acctggagac 300
caccaggcgc ggcatcaga tcgggtggtg tggcctcc tgggactgac cacttcttgc 360
tctccgacca ggcaggggcg agtggcctgg gaggttcccg gaccctcagg gcgcctgtgt 420
ctctgggcac cgcagctccg cccactcct tcctccagaa cattccccac tcgggctaga 480
gaattgcgtc tgctccagga atgcataccta gcgtgtgtac gatcgcgcct ggggtgtcctg 540
ttctcatgag caagcggttt taaccagcag cataatttat actcatagac aggactgggg 600
gaanggctgt tcctgangct ggggtgcagt gccttgaaa gcaccctga aacagtggac 660
cttgnatttt taagtgtccc tgcaaccat 689
```

<210> 3651

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3651

```
ctttttccct ctgtgatggt tgtagtagaa caaattaaaa gtcaaaagat tcatggttgt 60
caaatcctgg aaacagtcta caaacacagc tgtggggggt tgcctcctgt tcgaagtgca 120
ctggaaaaaa tcctggccgt ttgtcatggg gtcattgata aacagctctc agcctggatg 180
ctccatggac tcctcttggc ccagcatgaa gaattcttta tcaaacaggg gccatcttct 240
ggtaatgtca gtgccagcc agaagaggac gaggaggatc tgggcattgg gggactgaca 300
ggaaaacaac tgagagaact gcaggacttg cgcctgattg aggaagagaa catgctggca 360
ccatctctga agcagttttc cctacgagtg gagattttgc catcctacat tccagtggag 420
gttgctgaaa aaatcctatt tgttggagaa tctgtccaga tgtttgagaa tcaaatgtg 480
```

aacctgacta gaaaaggatc ctttttgaaa aaccaggaag acacttttgc tgcagagctg 540
 caccgtctca agcagcagcc actcttcagc ttggtggact ttgaacaggt ggtggatcgc 600
 attcgcagca ctgtggctga gcatctctgg aagttagatgg tagaagaatc cgatttactg 660
 ggtcanctga agatcattaa agactttttac cttcttggga cgtgganaac tggttcangc 720
 cttcatttga cacagtt 737

<210> 3652

<211> 733

<212> DNA

<213> Homo sapiens

<400> 3652

gtagtttcga gcccgtgcc ctttgcctcc tgggcggaga agctgcttcc tcctgggaac 60
 aaccgcctcc cgctcctagc aggtttgtac tgccccgaac ccgcgtgca gggaacagcg 120
 gggcaaacag tgagtggggt tcagcgtaga ctctggacca ggagaggccc gcggtgaccg 180
 aggcctgggc cccggaaacc aatagagcca tggcgactcc ctctgctgcc ttcgaggccc 240
 ttatgaatgg tgtgacaagc taggatgtac ccgaagatgc tgttccatgt gaactgcttc 300
 ttattggaga ggcttcattt cctgtgatgg tgaatgacat gggccaggtc ctcatctgctg 360
 cctcctccta tggccgtggc cgcctgggtg tcgtgtccca tgaggactac ttggtggaag 420
 cccagctcac gccctttctc ctgaacgcag tgggggtggct ttgctcttcc cctggggctc 480
 ccattgggtgt acacccatcc ctggcacctt tggccaaaat cctcgagggc tctggagtgg 540
 atgcaaaggt tgagccagaa gtgaaagact ccctgggggt ttactgtatt gatgcctaca 600
 atgaaacat gacagaaaag ctggtcaagt tcatgaaatg tgggtggcggc ttgctcatag 660
 gangacaagc ctgggggttg gcccaaccagg gggaggatga aagggttctg gtnacgttcc 720
 ctgggaacct tng 733

<210> 3653

<211> 654

<212> DNA

<213> Homo sapiens

<400> 3653

```

agtgctgcgg ctgcctagtt gacgcaccca ttgagtcgct ggcttctttg cagcgcttca 60
gcgtttttccc ctggagggcg cctccatcct tggaggccta gtgccgtcgg agagagagcg 120
ggagccgcgg acagagacgc gtgcgcaatt cggagccgac tctgggtgcg gactgtggga 180
gctgactctg ggtagccggc tgcgcgtggc tggggaggcg aggccggacg cacctctgtt 240
tgggggtcct cagagattaa tgattcatca agggatagtt gtacttgtct cgtgggaatc 300
acttcatcat gcgaaatctg aaattatttc ggaccctgga gttcagggat attcaaggtc 360
cagggaatcc tcagtgttc tctctccgaa ctgaacaggg gacggtgctc attggttcag 420
aacatggcct gatagaagta gaccctgtct caagagaagt gaaaaatgaa gtttctttgg 480
tggcagaagg ttttctccca gaggatggaa gtggccgcat tgttggtgtt caggacttgc 540
tggatcanga gtcagtgtgt gtggccacag cctctggaga cgtcatactc tgcagnctna 600
cacacaacag ctggaatgtg ttgggagggtg taaccagtgg tatctctgnt atga 654

```

<210> 3654

<211> 860

<212> DNA

<213> Homo sapiens

<400> 3654

```

atgcggctccc gggttctgtg gggcgccgcc cgggtggctct ggccccgccg ggccgttggc 60
ccagcccgcc ggcccctgag ctccggtagc ccgccgtgg aggagctgtt cgcccggggc 120
gggccccttgc ggaccttcct cgagcgccag gcggggctctg aagcccatth gaaggtcagg 180
aggcccgagt tgctggcggg gatcaaactg ctgaacgaga aggagcagga gctgcggggag 240
actgagcact tgctgcacga tgagaatgaa gatttaagga aacttgcaga gaatgaaatc 300
actttgtgtc aaaaagaaat aactcagctg aagcatcana agaaacagat gaaaatgatt 360
tgatcctgga agtaactgca ggagttggag gtcangaggc aatgttgttt acatcagaga 420
tatttgatat gtatcagcaa tatgctgcat ttaaaagatg gcattttgaa accctggaat 480

```

attttccaag tgaactangt ggccttagac atgcatctgc cagcattggg ggttcagaag 540
 cctataggca catgaaattt gaaggaggtg ttcacagagt acaaagagt ccaaagacag 600
 anaagcangg ccgcgtccat actagcacca tgactgtagc antattacc cagcctactg 660
 agattaatct ggtgattaat ccgaaagatt tgagaattga cactaagcga gccagtggac 720
 tgggggggca gcatgtaaat ccacggacag tgcttgtccg gatgggtcatc tttcaacagg 780
 ngtggttctg aatgcaacaa gagagatctc acttaaaaat aagacttgct ttgacaangt 840
 acctgcaaac tgtcagntgc 860

<210> 3655

<211> 782

<212> DNA

<213> Homo sapiens

<400> 3655

ctcttccggt ctccggccgc cccttacctg caggctcttc tcccgccgcg gcccggcgct 60
 ctccgagtcg cccctgcgga ctgggtctgc acagtgcctg ggcaccgggc gccagacaga 120
 cactggccat gacgagcggc gcaaccagggt accggctgag ctgctcgctc cggggccacg 180
 agctggacgt acggggcctg gtgtgctgcg cctatccgcc gggagccttt gtgtccgtgt 240
 cccgagaccg caccaccgc ctctgggccc cagacagtcc aaacaggagc ttacagaaa 300
 tgcactgtat gagtggccat tccaattttg tatcttgtgt atgcatcata ccctcaagtg 360
 acatctaccc tcatggccta attgccaccg gtggaaatga ccacaatata tgcattttct 420
 cactggacag tccaatgcca ctttatattc taaaaggcca caaaaatact gtttgtagtc 480
 tatcatctgg aaaatttggg acattactta gtggttcatg ggacaccact gctaaagtct 540
 ggctgaatga caagtgcag atgaccttgc agggtcatac aagctgcagt gtgggcggta 600
 aagatcttac ctgaacaggg cttaatgttg actggatcan caggcaagac tgttaaactg 660
 tggaaggctg gaagatgtga agaggacttt ttcagggcag gaagactgtg taagaagttt 720
 ggcaattttg agtgaaacaa gaatttcttt cctgngccaa atgaangctt agtatattaan 780
 aa 782

<210> 3656

<211> 774

<212> DNA

<213> Homo sapiens

<400> 3656

```

gagcctacca aacctttggt tcgcagggct ggagctaagt ctcgctccag gagaaagaag   60
cagaagaaga actccaggca ggaagcagtg ccctggaaaa aacccaaagg catcaattcc  120
aacagcacag ctaacttgga ggatcctgag gtgggtgatg ctgaaagcat ggcgatctca  180
gagccgatca agggcagcag aaagccctgt gtgaataagg aggagtggc tttgaagaag  240
cccatggcga aatgtgcctg gaagggtccc agagagccac ctcaggatgc ccgggcagaa  300
gccgagagcc caggaggcgc ctctgagtca gaccaagatg gtggccatga aagcccacca  360
aagaagaagg ccgtggcctg ggtgtctgcc aagaaccccg ctcccatgag gaagaagaag  420
aaggtgagct tgggccctgt ctctacgtc ttggttgact cagaagatgg caggaagaag  480
ccggtgatgc caaagaaagg gccaggctca agaaggagg catcagatca gaaggcccct  540
cggggccagc agcctgccga ggcaacagcc tcaacctcta ggggtccgaa gccaagccag  600
aaggctctcc tcggcgtgcc ccaatgaatn cagaaaggnt tgatctgggg gaccacccat  660
acttgaggag ttgaaagaac aaggaagacg tnccaagtca accaagtttc tctctttgtc  720
acttgaatta agacttttgg acttttntta aggggccctt tgtttgatta gnaa       774

```

<210> 3657

<211> 870

<212> DNA

<213> Homo sapiens

<400> 3657

```

ctcggctttg tgcggcgggtg gagctctacc cttctccaaa agaagagcca agagaaggtc   60
cttttctaca aatatcagag ccatggctca ggagtcagtg atgttcagtg atgtgtccgt  120
agacttctct caggaggagt gggaatgcct gaatgatgat cagagagatt tatacagaga  180

```

tgtgatgttg gagaattaca gcaacctggt ttcaatgggg cattctatit ctaaaccaaa 240
 tgtgatctcc tacttggagc aagggaagga gccctggttg gctgacagag agctaacaag 300
 aggccagtgg ccagtcctgg aatcaagatg tgagaccaag aaattatttc tgaagaaaga 360
 aatttatgaa atagaatcaa cccagtggga aataatggaa aaactcacia gacgtgattt 420
 tcagtgtctc agtttcagag atgattggga atgtaatagg cagtittaaga aagaactcgg 480
 ctctcagggg ggacatttca atcaattggt attcactcat gaagatctgc ccactttgag 540
 tcaccatcca tccttcacat tacagcaaat cattaacagt aaaaagaaat tctgtgcatc 600
 taaagaatat aggaaaacct ttagacatgg ctacacagttt gctacacatg agataattca 660
 taccattgag aaccttatga atgtaaggaa tgtggaaagt cctttagaca tccctcaaga 720
 ctactcatc atcagaaaat tcatactggc aagaaacctt ttgaatgtaa ggaatgtgga 780
 aaaaccttta ttggggcttc anaccttact cgacatcncc ggaattcaca ctgggtgaga 840
 aacctntga atgtaaggaa tgtgggaaaa 870

<210> 3658

<211> 784

<212> DNA

<213> Homo sapiens

<400> 3658

actttcaaaa tggcggagtg tggagcgagc ggcagcggga gcagcgggga cagtctggac 60
 aagagcatca cgctgcccc cgacgagatc ttccgcaacc tggagaacgc caagcgttc 120
 gccatcgaca taggcgggtc gttaccaag ctggcctact attcaacggt acagcacia 180
 gtcgccaagg tgcggtcttt cgaccactcc ggaaaggaca cagaacgtga acatgagccg 240
 ccctatgaga tticagtcca agaagagatc actgctcgac tgcacttcat taagtttgag 300
 aatacctaca tcgaagcctg cctggacttc atcaaagacc atctcgtcaa cacagagacc 360
 aaggtcatcc aggcgaccgg gggcggggcc tacaagtcca aggacctcat cgaagagaag 420
 ctgcggctga aagtcgacaa ggaggacgtg atgacgtgcc tgattaagggt gtgcaacttc 480
 gtgtcaaga acatccccc tgaggccttc gtgtaccaga aggattccga ccctgagttc 540
 cggttcaga ccaaccaccc ccacatttcc ccctatcttc ttgtcaatat cggtctgga 600

gtctccatcg tgaaggtgga gacggaggac aggttcgagt gggtcggcgg cagctccatt 660
 ggaggcggca ccttctgggg gcttggcgct ctgctcacca aaacgaagaa gtttgacgag 720
 ctctgcacc tggctcgang ggccagcaca gcaatgtgga catgctgggt ccggacgtnt 780
 acng 784

<210> 3659

<211> 764

<212> DNA

<213> Homo sapiens

<400> 3659

ggaagaaccc gcagcagctc ccaggatgaa ctggttgcag tggctgctgc tgctgcgggg 60
 gcgctgagag gacacgagct ctatgccttt ccggctgctc atcccgcctc gcctcctgtg 120
 cgcgctgctg cctcagcacc atgggtgcgc aggtcccgcg ggctccgcgc cagatcccgc 180
 ccactacagg gagcgagtca aggccatgtt ctaccacgcc tacgacagct acctggagaa 240
 tgcctttccc ttcgatgagc tgcgacctct cacctgtgac gggcacgaca cctggggcag 300
 tttctctctg actctaattg atgcactgga caccttgctg attttgggga atgtctcaga 360
 attccaaaga gtggttgaag tgctccagga cagcgtggac tttgatattg atgtgaacgc 420
 ctctgtgttt gaaacaaaca ttcgagtggg aggaggactc ctgtctgctc atctgctctc 480
 caagaaggct ggggtggaag tagaggctgg atggccctgt tccgggcctc tcctgagaat 540
 ggctgacgag gcggnccgaa aacttctccc agcctttcag acccccactg gcatgccata 600
 tggaacagtg aacttacttc atggcgtgaa cccaggagag acccctgtca cctgtacggc 660
 agggattggg accttcattg gtgaatttgc caccctgagc agcctnactg gtgaccgggt 720
 gntcgaagat gtggccngaa gtggcttttg atgcgcctct ggga 764

<210> 3660

<211> 788

<212> DNA

<213> Homo sapiens

<400> 3660

```
attgataata cttttaatgt gttggtaatg atgtttaaaa ttgaaagatt tttaaaataa 60
aaatgataga ttttcttact aaaaatgttt ttattaacct tgctttttatt ggaaaaaatc 120
aagcaatatt tctttttctt ttgtgttata ttgtacttta ctgattcatt tactgggtgat 180
acatatgttt ttatggattt tccagtttaa tttgcatata caaatgaatg caatgggtcta 240
ttgggtgagca ttgagcaaca ctgtataaag ttttaaaaat gtaaacactt tttaatctac 300
tttcctctaa aaatcaataa tattctatta tttctaatacc ttttccactt gggaaataac 360
aatgaagaat ctgagaattt gacatctata actttacaga ttcatttttc catttaaatt 420
tcagtttctt ggatcactga atatgggaag ggagagcttc actaattaga cgcagcttct 480
taagaactta tattctcttt gacatacatc tctattgtag ttttttgttt tgttttgttt 540
tttgagatgg agtcttgctc tgtcacccag gctggagtgc agtggtgcaa tctcagctca 600
ctgcaacctc tgccctcctgg gttcaagtga ttctcgtacc tcagactccc gagtagttgg 660
gattacaggt gcccaccacc acaccgcta attttgnatt tttagtagcc atgtggtttg 720
ccatgttggc cagctggttc gactctgcct cagtganccc cactantccc aagtgtggat 780
acgggtga 788
```

<210> 3661

<211> 738

<212> DNA

<213> Homo sapiens

<400> 3661

```
acttactgag aacattaaag ggaaatgata aactcgtggt ggggatatgg cagacaggtg 60
cttgtttggt tgagagaagt agcagaagag ataaaataca aagtgtctata tgtttcagct 120
ggagaggaaa gagagagaat ttattagatt atatacttgt cccatggcat accacgtata 180
tgtttaaata gggacacatc tccctatggt taactatact tataaacaac tttgatacac 240
attgcgtctt ttattctgtc acctgatatt ttagtgtatc tcaagttaca gattacatgt 300
gtccttaaac tatttctgaa ttggactta gttccatata cagaaagaac tttagaaaat 360
```

tcattaattt ggatcttcta ttgatagcca taaatattat gtttatgtat tctaaaacct 420
 ctttgttttag ttagtactgt tcatgaatgt aacaagcttc aatttctcat ttgtgagtag 480
 tacatttgct ttttgtttgt ttgtttgttt gtttttgaga tggagtctca cgctgtcacc 540
 aggctggagt gcagtggcgc gatttcagct cactgcaacc tccacctccc aggtgcaagt 600
 gatgccccctg cctcagcctc ccgagtagct gggactacag acacccgnca ccacacctgg 660
 ctaatttttg tatttttagt agagacgggg tttcaccatg ttgctangct ggtctcaaac 720
 tcttgacctc gngatttg 738

<210> 3662

<211> 866

<212> DNA

<213> Homo sapiens

<400> 3662

tgatattgaa tatttcagaa aagatccaag accattcttc aagtttgcaa aggaaatata 60
 tcctggacaa ttccagccat ctctctgtca caaattcata gccttgtcag ataaggaagg 120
 aaaactactt cgcaactata cccagaacat agacacgctg gaacaggttg cgggaatcca 180
 aaggataatt cagtgtcatg gttccittgc aacagcatct tgcctgattt gtaaatacaa 240
 agttgactgt gaagctgtac gaggagatat ttttaatcag gtagttcctc gatgtcctag 300
 gtgcccagct gatgaaccgc ttgctatcat gaaaccagag atttgtgttt ttggtgaaaa 360
 ttaccagaa cagtttcata gagccatgaa gtatgacaaa gatgaagttg acctcctcat 420
 tgttattggg tcttccctca aagtaagacc agtagcacta attccaagtt ccatacccca 480
 tgaagtgcct cagatattaa ttaatagaga acctttgcct catctgcatt ttgatgtaga 540
 gcttcttgga gactgtgatg tcataattaa tgaatttgtt cataggtag gtggtgaata 600
 tgccaaactt tgctgtaacc ctgtaaagct ttcagaaatt actgaaaaac cttcacgaac 660
 aaaaaagaa ttggcttatt tgtcagagtt gccaccaca cctcttcatt tttcagaaga 720
 ctcaagttca ccagaaagaa cttcaccacc agattcttca gtgattgnca cacttttaga 780
 ccaagcagct tagagtaatg atgatttana tgtggctgaa tcaaaagggt gtatggaaga 840
 aaaccncagg aagtccaaac tttttg 866

<210> 3663

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3663

```

gggagccgca atgtctcttg acagcggcgg cggcgcagcc ggttcgggt tcggcgcggg 60
gcggggatgt gaatcccgat ggagcggccc gaggaaggca agcagtcgcc gccgccgcag 120
ccctggggac ggctcctgcg tctgggcgcg gaggagggcg agccgcacgt cctcctgagg 180
aagcgggagt ggaccatcgg gcggagacga ggttgcgacc tttccttccc cagcaataaa 240
ctggtctctg gagatcactg tagaattgta gtggatgaaa aatcaggtca ggtgacactg 300
gaagatacca gcaccagtgg aacagtgatt aacaagctga aggttggtta gaagcagaca 360
tgccctttac agactgggga tgtcatctac ttggtgtaca ggaagaatga accggaacac 420
aacgtggcat acctctatga atctttaagt gaaaagcaag gcatgacaca agaatccttt 480
gatacctcag gtgcagggtgc agggcgaggg gccgatcccc gggtcctccc gtcgtcgccc 540
gccactcagg tgtgctttga ggaaccacag ccatcaacat cgacgtcaga cctcttcccc 600
acagcctcgg cctcttccac ggagccttct cctgcagggc gagagcggtc ctccagttgt 660
gggtctgggg gtggtggcat cttccctaaa ggaagtggtc cctctgtggc aagtgatgaa 720
agtctncagc ttgtcttaac tcttccagac agaaagactg cgtccttttc gtcgttgga 780
ccccangatc angaggattt tggagcccg gaagaa 816

```

<210> 3664

<211> 874

<212> DNA

<213> Homo sapiens

<400> 3664

```

gtttggggac ctgtttgaag aggagtattc cactgtgtct aataatcagt atggaaaagg 60

```

gaagaaatta aagactaaag ctttgagacc acctgctcct agagaattca ccaatttaag 120
 cggaatcaga aatcagggtg gaacctgtta cctcaattcc cttcttcaga ctcttcattt 180
 cacacctgaa ttcagagaag ctctattttc tcttgccca gaagagcttg gtttgtttga 240
 agataaggat aaaccgatg caaagggtcg aatcatccct ttacagttac agcgcttggt 300
 tgctcagctt ctgctcttag accaggaagc tgcattccaca gcagacctca ctgacagctt 360
 tgggtggacc agtaatgagg aaatgaggca acatgatgtg caggaactga atcgaatcct 420
 cttcagcgct ttggaaactt ctttagttgg gacctccggt catgacctca tctatcgtct 480
 gtacatgga accattgtta accagattgt ttgtaaagaa tgtaagaacg ttagcgagag 540
 gcaggaagac ttcttagatc taacagtagc agtcaaaaat gtatccggtt tggaagatgc 600
 tctctggaac atgtatgtag aagaggaagt ttttgattgt gacaacttgt accactgttg 660
 aacttgtgac aggctgggtta aagcagcaaa gtcggccaaa ttacgtaagc tgcctncttt 720
 tcttactggt tcattactaa gatttaattt tgattttgtg aaatgcgaac gcttcaangg 780
 aaactagctg gtatacattc ccttttccgg antaatctca gcccttttgn ggaacagaag 840
 ggaattggga tgacttagaa tatatatatg accc 874

<210> 3665

<211> 801

<212> DNA

<213> Homo sapiens

<400> 3665

agtaaccctt cggtttctg ttctggacg gtggcgcccg ccggtctat gatggagccc 60
 ccgaagcccc agcctgagct ccagcggttt taccaccggc tgctgcgtcc gctgtcgtc 120
 ttccccacta ggacgacgtc cccagagcct cagaagcgcc ccccgagga gggccggatt 180
 ctgcagtcct tccctctggc gaagctgacg gtggcgctgc tgtgcagcca ggtggccaag 240
 ctgctggccg gcagcgggat agcagcgga gtgcctcctg agggccgact acgtctcatc 300
 aaggtcatcc tggacgagct gaagtgcagc tggcgggagc cggccgccga acttagtctg 360
 agccacaaaa acaaccagaa gctgcggaag cggctcgagg cctacgtgct gctgagcagc 420
 gagcagctct tcttgcgcta cctgcacctg ctggtgacca tgtcgactcc caggggggtc 480

t t c a c t g a a t c a g c c a c c c t c a c c c g g t t g g c c g c c a g c c t c g c c a g g g a c t g c a c a c t c 540
t t c c t t a c t a g t c c c a a c g t c t a c c g t g g c c t g c t t g c c g a c t t c c a g g c c c t g c t g a g g 600
g c a g a g c a n g c c t c t g g g g a t g t g g a c a a g c t g c a c c c t g t c t g c c c g c t g g g a c g t t c a 660
a g c t g t g c c c t a t c c t g g c t a c a g c a c t g g c t t c g c c a a t g c a g t g t c t a a c t n a a c t g a 720
c t a c t a t c a a c t a g c g t c a c a a g t t c t a t g a n c a g a a g a t g a t c a t g a n g a t g a t c a t c c 780
t c g t g a g a g a a a a g c t t c a t g 801

<210> 3666

<211> 750

<212> DNA

<213> Homo sapiens

<400> 3666

a c t c c c t c c c c g c g g g g c g c g c a g c t c g c g g g t c t t t g g a c a c c a c c g g t c c t g a g t c c g 60
c g g a c t g c c a t t t t c a t t a a g a a c t g c c a c t t a g a g g t a c c a a a t a a a g g g t a t t t g c t 120
a c c t t t a a t a c t t g c c a g t t c a g g t t g g a g g c a c a g g c a g c a g a a g a a t g g a a g a a a t 180
g t t c t t a c a a c a t t t t c a c a g g a a t g t c c c a g t t a a t t t t g a a t g a a t g c c a a a a g c t 240
g a a t a t t c c a g t t t a t t c a a t g a t t t t g t t g a a t c t g a a t t t t t t g a t t g a t g g g g g a t 300
t c a t t a c t t a t c a c a t g t a t c t g t g a g a t a t c a t t t a a g c c t g g g c a g a a c c t c c a t t t c 360
t t c t a t c t g g t t g a a c g c t a t c t t g t g g a t c t t a t t a g c a a a g g a g g a c a a t t c a c c a t a 420
g t t t t c t t c a a g g a t g c c g a g t a t g c g t a t t t c a a c t t c c c t g a a c t t c t t t c t t g a g a 480
a c t g c t t t a a t c c t t c a t c t t c a g a a g a a t a c c a c c a t t g a t g t t c g a a c a a c a t t t t c g 540
a g a t g c t t a t c a a a a g a g t g g g g a a g t t t c t t g g a a g a g a g t t a c c c a t a t t t c c t g a t a 600
g t t g c a g a c g a a g c c t g a a c g a t c t a c a a a c a c a g c t t t t c a a c t t t t t a a t c a t t c a t t 660
c t t g g g c a a n g a a n g t c a a c g g t t g g a c t t t c c t c a g g g c a a g a a t c t g a n g g t c t t t g g 720
c t t t a t g c a t a c c t t t t t t c c a a c a t g t c c 750

<210> 3667

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3667

```

gaggcgggca aggcgggCGC cgaggtttgc aaaggctcgc agcggccaga aaccCGgtc 60
cgagcggcgg cggcccggct tccgtgccc gtgagctaag gacggtcgc tccctctagc 120
cagctccgaa tcctgatcca ggcgggggCC aggggcccct cgcctcccct ctgaggaccg 180
aagatgagct tcctcttcag cagccgctct tctaaaacat tcaaaccaaa gaagaatatc 240
cctgaaggat ctcacagta tgaactctta aaacatgcag aagcaactct aggaagtggg 300
aatctgagac aagctgttat gttgcctgag ggagaggatc tcaatgaatg gattgctgtg 360
aacactgtgg atttctttaa ccagatcaac atgttatatg gaactattac agaattctgc 420
actgaagcaa gctgtccagt catgtctgca ggtccgagat atgaatatca ctgggcagat 480
ggtactaata ttaaaaagcc aatcaaatgt tctgcaccaa aatacattga ctatttgatg 540
acttgggttc aagatcagct tgatgatgaa actctttttc cttctaagat tgggtgtccca 600
tttcccaaaa actttatgtc tgtggcaaag actattctaa agcgtctgtt cagggtttat 660
gccccatatt atcaccagca ctttgattct gtgatgcagc tgcaagaagg ggcccacctc 720
acacctcctt taagcacttt attttctttg gtcaggagtt taatctgatt gatagcgtga 780
acttggcacc tcttcaagaa ttaatagaga aacttggatc aaaagacnga taatggttct 840
tctaaacaca gtacccc 857

```

<210> 3668

<211> 867

<212> DNA

<213> Homo sapiens

<400> 3668

```

ctcgtagcga gcctagtggc ggggtgtttgc attgaaacgt gagcgcgacc cgaccttaaa 60
gagtgggggag caaagggagg acagagccct ttaaaacgag gcgggtggtg cctgcccctt 120
taagggcggg gcgtccggac gactgtatct gagccccaga ctgccccgag tttctgtcgc 180

```

aggctgcgag gaaaggcccc taggctgggt ctgggtgctt ggcggcggcg gcttcctccc 240
 cgctcgtcct ccccgggccc agaggcacct cggcttcagt catgctgagc agagtatgga 300
 agcacctgac tacgaagtgc tatccgcgcg agaacagcta ttccacgaga ggatccgcga 360
 gtgtattata tcaacacttc tgtttgcaac actgtacatc ctctgccaca tcttcctgac 420
 ccgcttcaag aagcctgctg agttcaccac agtggatgat gaagatgcca ccgtcaacaa 480
 gattgcgctc gagctgtgca cctttaccct ggcaattgcc ctgggtgctg tcctgctcct 540
 gcccttctcc atcatcagca atgaggtgct gctctccctg cctcggaact actacatcca 600
 gtggctcaac ggctccctca tccatggcct ctggaacctt ggttttctct tctccaacct 660
 gtccctcatc ttctcatgc cctttgcata tttcttact gagtctgang gctttgctgg 720
 cttcagaaan ggtgtcctgg gccgggtcta tgagacagtg gtgatgttga tgcttcttac 780
 tttgctgggtg ctaaggtatg gngtgggttg gcattaagcc attgnggaca agaaccaagg 840
 gccaacagan agtcactcta tgacttt 867

<210> 3669

<211> 865

<212> DNA

<213> Homo sapiens

<400> 3669

tgtattgtga ctatcagcat tctggtgcaa atgaactttt ctccatcatc gactgtggaa 60
 aattgatact tttaaagcat attcttctat gagcacaggt cctcctagtg aagcttagtt 120
 tgacaaaggg tgcataatgc tttcctaacc tgattttag ttaacattca cagagcctac 180
 attttctcat tagggttatg atgctcagta tctttccaag tgccaggcac gggcttcctt 240
 ttctgatcaa acataccatt ttttgtatit cacaactata gacagtcact tctgcagtcc 300
 caatttaaaa atgcagaact gctttatcca agaattgctga aaaatactgt tctatccagg 360
 tttcctaaac tataaaagca gattttgctt ttgtttgtta atcataggca tggccgagca 420
 ttgtggatta gcctgaggct taaaatcaga tgcatgtctg gtaagatgac cactgtctca 480
 ctatcaagag cctgcagagc cattttccag acctgtgatt gcccagaaca catagtcccc 540
 acgttttctaa tttggagcaa atctaaaagg tgctgaggga ttggacagct ctgactttcc 600

tcgagactat ggatatagtc cttctcgat tagctggaaa tggggacaga gttctcattt 660
atcccagaca tatacattgg cttttttgga atctacagat tgagattttg atgaatttat 720
attgggtttt aatgagaccc aaatggactc ttctcttaac aattcaagcn gtagnaccaa 780
aggttggctc accaaattnc cggaaaaaac catctttttt gggcctacct ttcgccaagg 840
ttttccaaaa accgtggata aatta 865

<210> 3670

<211> 852

<212> DNA

<213> Homo sapiens

<400> 3670

agttaacaga ttcttgctcg atagcttggt tgtgtctgtc gtgttattag agggaactcc 60
actatatatg gtcacttgaa attatgatgc aaaggtttct ctgcatgga aaccctcttg 120
gatattacag tatttttaat tgaaagtcct aattctgtta aggaaaggag ttgattaaat 180
tttaaggtag cactgggtatt ttgggagatt ataatcagtt tgttttcaag ataataaaaa 240
ataagggtcca tgagaataga agttatgtga ttccagtgag ttgatgtgta cagcatggct 300
gtgtccatc tgatttacc cttcttaag ttctgagagt atgttctcaa ggaagattta 360
actctctttg gttttaaatt actttttaac cagcctaata aataagctt actacttttc 420
ataatatttc ataatagtta aaagtaggtg ttttttctgt gctcaatttg gcactcaaaa 480
taatgttcat tatggaagtt tggtaatact gagcaagcct gtggaatttt ctttatgaaa 540
aatgatttta gcctttgcaa atgttaacca tgtgaaacac attttcagta taagtatgcg 600
ttacagggtt tgatactttc ctgcacttag gttgtccta ttcttcattt attcatacta 660
ggatagaaaa ttttggatc agaaaataga tccagtgttt agctacatac aatctagtac 720
aagtgaattt ttattcttaa acataggtgt gttggctctt tttttaaaag atgcgctcta 780
cctgaaaang gaaattggga ttttanaact gggatgtggg tgccggtgaa agtattttan 840
ggcccagggtc tg 852

<210> 3671

<211> 880

<212> DNA

<213> Homo sapiens

<400> 3671

```

gaactgtggc gctttctggg taaagatgga cgtccacgat ctctttcgcc ggctcggcgc   60
gggggccaaa ttcgacacga gacgcttctc ggacagacga gctcgattcc agataggaaa  120
aaggaaatat gactttgatt cttcggagggt gcttcaggga ctggactttt ttggaaacaa  180
gaagtctgtc ccagggtgtg gtggagcatc acaaacacat cagaagcccc aaaatggaga  240
gaaaaaagaa gagagcctaa ctgaaaggaa gagggagcag agcaagaaaa aaaggaagac  300
gatgacttca gagacagggt ttcacatgtg tggccagtat ggtctcgatc tcctgacctc  360
gtgattcacc caccttgggc tcccaaagtg ctgggattac agatgtgagc caccacgccc  420
agccagaaat tgcttcccaa gaagaagggt ctactataca gtggatgtca tctgtagaag  480
caaagattga agacaaaaaa gttcagagag aaagtaaact aacttccgga aagttggaga  540
atctcagaaa agaaaagata aacttcttgc ggaataaaca caaaattcac gtccaaggaa  600
ccgatcttcc tgaccaatt gctacatttc agcaacttga ccaggaatat aaaatcaatt  660
ctcgactact tcagaacatt ctagatgcag gcttncaaat gcctacgcca atccaaatgc  720
aagccatccc agttatgctg catggtccgg gaacttcttg gcttctgctc caactggatc  780
tgaaaaaaca ttagctttta gcattcctat tttaatgcca cttgaaacaa cccgcaaatt  840
aaggctttta aaccctgant atntcancca acacgagaac                               880

```

<210> 3672

<211> 845

<212> DNA

<213> Homo sapiens

<400> 3672

```

tctccccgcc cgccggcccc tccagcctcc tccaaggcgg cggaccaggc cgggccggag   60
ttttcggggg tcagcccgcg agcgggagga ccggggaggc gagggaggag gaaggcgaga  120

```

agggccagat cgcgggagag cccaatcacg gggcgagctg gacctggctg tgatcattta 180
 taatccttga ctctccgct ccgccacttg tcaagatgac aggggtcatc cgtgaataac 240
 acttcacgct gatgaatggc tcttgccggc tttcggtctt gatgaggggt ctgcccgcg 300
 ccgattgaaa aactaatga acttactgcg ccatttgaaa ttcacacgca ccaacaaaat 360
 ggggggtggg catttcaggt cagctgagtc acccgaggag gtggcagtgc aagacactgc 420
 cggaagacg gattccgagg cagaagggtg taattaagga tttccacccc cggtaggcgg 480
 cccgtccttt gcagagcctc tgaaaatgac ccgcgccttc ctttccacag tgttctttcg 540
 tccgagaccg aaaagcgcaa atgacctttg gacagggaag ggaggcagta aacactcaga 600
 cttccttacc agcccctggg gggcactgca gcagaacaat tgtctgcccc caggttcaag 660
 cacctagcct ccgncccgca tacctgccag gggcggaccc cgggagtcct tcgaagcttc 720
 actcccactt ttactactct tctttctctc attctnccct caaattaacg ggccggacac 780
 ttgtcccttg nctcgaattt tggttgcttg tgggaaagga aaaaaaaaaag ntttgctggt 840
 tcctt 845

<210> 3673

<211> 835

<212> DNA

<213> Homo sapiens

<400> 3673

ggagcctagc ggctctcccc gcgtccaaga tggcggcaga agcagctggt gggaaataca 60
 gaagcacagt cagcaaaagc aaagaccctt cggggctgct catctctgtg atcaggactc 120
 tgtctactag tgacgatgtc gaagacaggg aaaatgaaaa gggtcgcctt gaagaagcct 180
 acgagaaatg tgaccgtgac ctggatgaat tgattgtaca gcactacaca gaattgacga 240
 cagccattcg cacataccag agcatcacag agcgcatac taactcccga aataaaataa 300
 agcaggtaaa agagaacctg ctttcatgca agatgctgct gcactgcaa cgggatgagc 360
 ttcggaaact gtggattgaa ggaattgagc ataagcatgt cctgaacttg ttggatgaaa 420
 ttgagaatat caagcaagtg cctcaaaagc tggaacagt catggccagc aagcactatc 480
 tcagtgccac tgacatgttg gtgtcagcag ttgagtcttt ggagggccccc ctgctccagg 540

tggaaggact gagtgacctt cgactagagc ttcacagcaa gaagatgaac cttcacttgg 600
 tctcatagat gaactacacc ggcacctgta catcaaatcg actagccgag ttgtgcagcg 660
 taacaaggaa aaagggaata tcagcttcct cgtgaaagat gcttctgttc ctctgattga 720
 tgttacaaac ctctactcc tcgaaaattc cttgatcctc tncatttcta ctgntggaac 780
 tcaagtgtga nggagataaa tctgcaggac atcagggaag attagaattg gatcc 835

<210> 3674

<211> 882

<212> DNA

<213> Homo sapiens

<400> 3674

ctaaaaatca agcatggcga tttgttggtc ctgtttccct cgagccttgc tgggccctca 60
 tctgaaatgg agacgtcagt tccaccgggc ttcaaagtct ttggcgctcc caacgtggtg 120
 gaggatgaga ttgatcagta cctcagcaaa caggacggga agatttacag aagccgagac 180
 ccacagctat gccgccacgg ccctttgggg aaatgcgtgc actgcgtccc tctagagcca 240
 ttgatgagg actatctaaa ccatctcgag cctcccgtga agcacatgtc cttccacgcc 300
 tacatccgga agctgactgg aggggctgac aagggaagt ttgttgccct ggagaacatc 360
 agctgcaaga ttaagtcagg gtgcgagggg cacctccgt ggccgaatgg catctgtact 420
 aagtgccagc cgagcgccat cagctgaac agacagaagt acaggcatgt ggacaatatc 480
 atgtttgaga atcacaccgt cgctgaccgc tttcttgact tctggagaaa gacaggggagc 540
 cagcattttg ggtacttata cggacggtac acggagcaca aagacattcc ccttggcatc 600
 agggctgaag tggctgcgat ttatgagcca cctcagattg gtacacagaa cagcttggag 660
 cttcttgagg atccaaaagc tgaagtggtc gatgaaattg cttgccaaac ttggcctgcg 720
 gaaggntggc tggatattta cagacctcgt cttaaaaaga taccgaaag ggtaccgctc 780
 cgcttcaagt cgaaatangc cacctatttt ctaagttcan aagaatgcat cactgcagga 840
 gactttcaga acaagcattc caacatgtgc cggntttttt ca 882

<210> 3675

<211> 885

<212> DNA

<213> Homo sapiens

<400> 3675

```

agatttccag tgggttcaag gagatgtgtg tgaagttcag ctgatggtat ataaccaat   60
gccgtttgaa cttcgagttg aaaacatggg gctgctcacc agcggagtgg agttcgagtc  120
tctccctgcg gcgctttctc ttccggctga atctgggtctg taccagtgga cgctcgtcgg  180
gggtcccgcag acgactggaa cgattactgt gaacggttac cataccacgg tcttcggtga  240
gttcagtgac tgtttgctgg ataacctgcc gggaataaaa accagtggct ccacagtgga  300
agtcattccc gcgttgccaa gactgcagat cagcacctct ctgccagat ctgcacattc  360
attgcaacct tcttctggtg atgaaatata tactaatgta tctgtccagc ttacaatgg  420
agaaagtcag caactaatca ttaaattgga aaatattgga atggaacct tggagaaact  480
ggaggtcacc tcgaaagttc tcaccactaa agaaaaattg tatggcgact tcttgagctg  540
gaagctagag gaaacccttg cccagttccc ttgacagcct gggaagggtg ccacgttcac  600
aatcaacatc aaagtgaagc tggatttctc ctgccaggag aatctcctgc aggatctcag  660
tgatgatgga atcagtgatg gtggctttcc cctgtccagt ccttttcggc angtcgttcg  720
gccccgaatg ganggcaaac ctgtgaaccc acccgagagc aacaaagcag gcgactacag  780
ccacgtgaag accctggaag ctgtcctgac tttaaatact ntggaggccc gggccacact  840
tgaaggatnt tncaggaatc tcttcctggg gcttgcattg aaaaaa                885

```

<210> 3676

<211> 886

<212> DNA

<213> Homo sapiens

<400> 3676

```

aagtggcagg caggcaggct ggccccgggg acttctctct ggccctgctc cctccgagcg   60
ctccgccgtt gcccgcttgg cccctacgga gtccttagcc aggatggagg ctgttgtgaa  120

```

cttgtacca gaggtgatga agcacgcaga tccccggatc cagggtacc ctctgatggg 180
gtcccccttg ctaatgacct ccattctcct gacctacgtg tacttcgttc tctcacttgg 240
gcctcgcate atggctaate ggaagccctt ccagctccgt ggcttcatga ttgtctacaa 300
cttcccactg gtggcactct ccctctacat tgtctatgag ttcctgatgt cgggctggct 360
gagcacctat acctggcgct gtgacctgt ggactattcc aacagccctg aggcacttag 420
gatggttcgg gtggcctggc tcttcctctt ctccaagttc attgagctga tggacacagt 480
gatctttatt ctccgaaaga aagacgggca ggtgaccttc ctacatgtct tccatcactc 540
tgtgcttccc tggagctggg ggtggggggg aaagattgcc ccgggaggaa tgggctcttt 600
ccatgccatg ataaactctt ccgtgcatgt cataatgtac ctgtactacg gattatctgc 660
ctttggccct gtggcacaac cctacctttg gtggaaaaag cacatgacaa gccattcagc 720
tgatccagtt tgnccctggc tctactgnaca tctnccagta ctactttatg tccaactgta 780
actaccaagt acccagtcac tattcacctc atctgggatg tatggcacca tcttcttcat 840
gctggtcttc aacttntggg attacttctt ataccaaggg caagcg 886

<210> 3677

<211> 844

<212> DNA

<213> Homo sapiens

<400> 3677

tgcttggccg tgcttgcct gtcatccac ctgagaacca tgctcaccga ccctggggca 60
gtacccaaag gaaacgtac gaaagaatac atggagagct tgcagctgaa gcccggggaa 120
gtcatctaca agtgcacca gtgctgctgt attaaacccg agcgcgcca cactgcagt 180
atttgcaaaa gatgtattcg gaaaatggat catcactgcc cgtgggtgaa caattgtgta 240
ggagaaaaga atcaaagatt ttttgtctc ttcactatgt atatagctct gtcttcagtc 300
catgctctga tcctttgtgg atttcagttc atctcctgtg tccgagggca gtggactgaa 360
tgcagtgatt ttccacctc gataactgta atcctgttga tcttcctgtg ccttgagggt 420
cttctgtttt tcactttcac tgcagttatg tttggcacc aaatccactc catatgcaac 480
gacgagacgg agatcgagcg attgaaaagt gagaagccca catgggagcg gaggctgcga 540

tgggaaggga tgaagtccgt ctttgggggg cccccctcac tcctctggat gaatcccttt 600
 gtgggcttcc gatttaggcg actgcccacg agaccagaa aaggcggccc ggagtctca 660
 gtgtgaggcg tggctcatca gactgaaact tgctcacaga cttnacagta tttatttggg 720
 gtctgaagga tatcaacaag ctcatctgtg accaacaggg caactgggaa cctacacaaa 780
 ccaattgctt gcancaagca gaagtttata tatttatagt cccaatggca naggaagagg 840
 ctnt 844

<210> 3678

<211> 811

<212> DNA

<213> Homo sapiens

<400> 3678

cagcgccagc tccgcgtccc gaccggcccc cggcagcctg cgccgcgcca tggccacctc 60
 cccgcagaag tcgccttctg tccccaaagt tccactccc aagtcgcccc cgtcccgcga 120
 gaaagatgat tccttcttgg ggaaactcgg agggaccctg gcccggagga agaaagccaa 180
 ggaggtgtcc gagctgcagg aggagggaat gaacgccatc aacctgcccc tcagcccaat 240
 tccctttgag ctggaccccg aggacacgat gctggaggag aatgaggtgc gaacaatggt 300
 ggatccaaac tcacgcagtg accccaagct tcaagaactg atgaaggat taattgactg 360
 gattaatgat gtgttggttg gagaaagaat cattgtgaaa gacctagctg aagatttgta 420
 tgatggacaa gtctgcaga agcttttcga gaaactggag agtgagaagc taaatgtggc 480
 tgaggtcacc cagtcagaga ttgctcagaa gcaaaaactg cagactgtcc tggagaagat 540
 caatgaaacc ctgaaacttc ctcccaggag catcaagtgg aatgtggatt ctgttcatgc 600
 caagagcctg gtggccatct tacacctgct cgttgctctg tctcagtatt tccgcgcacc 660
 aattcgactt ccagaccatg tttccatcca agtggttgtg gtccagaaac gagaaggaat 720
 ccttcacttc ggcaaatcca agaggaaata actggttaaca cagangctct ttncggangc 780
 atgaacgtga tgcctttgac accttggttcg a 811

<210> 3679

<211> 702

<212> DNA

<213> Homo sapiens

<400> 3679

```

gaggctcggc cgcctgagcc gcggacgggt tgctgagccc gttagtgcgc ccggccgaga   60
cacgccgccg ccatgtcccg ctacctgcgt ccccccaaca cgtctctgtt cgtcaggaac  120
gtggccgacg acaccaggtc tgaagacttg cggcgtgaat ttggtcgtta tggctctata  180
gttgatgtgt atgttccact tgatttctac actcgccgtc caagaggatt tgcttatgtt  240
caatttgagg atgttcgtga tgctgaagac gctttacata atttggacag aaagtggatt  300
tgtggacggc agattgaaat acagtttgcc cagggggatc gaaagacacc aaatcagatg  360
aaagccaagg aaggaggagaa tgtgtacagt tcttcacgct atgatgatta tgacagatac  420
agacgttcta gaagccgaag ttatgaaagg aggagatcaa gaagtcggtc ttttgattac  480
aactatagaa gatcgtatag tcctagaaat agaccgactg gaagaccacg gcgtagcaga  540
agccattccg acaatgatag attcaaacac cgaaatcgat ctttttcaag atctaaatcc  600
aattcaagat cacgggtcaa gtcccagccc aagaaagaaa tgaagctaaa tcacgttcta  660
ngtctgnatt tacaccaaac tagaggcacc tntaaacaga tt                               702

```

<210> 3680

<211> 826

<212> DNA

<213> Homo sapiens

<400> 3680

```

aagtcacgtg ctgtgacagt agctgggggtg aggccgtcgt cgccgcacgg gctggttggg   60
gctgtgtctg tgggaggcgc cgggggtgatg gcggtggaga ctctgtcccc ggactgggag  120
tttgaccgcg ttgacgacgg ctgcagaaaa attcatgccg aagtccaact taagaattat  180
gggaaatttc ttgaggagta tacctctcaa ctgagaagaa ttgaggacgc tctggatgac  240
tcaattggag atgtttggga tttcaatctt gatcctatag cattaaagct tttgccttat  300

```

gaacagtcct ctcttttggga actcataaag actgaaaaca aggtcttaaa caaagtcatac 360
 actgtttatg ctgcactttg ttgtgaaatc aagaaattaa aatatgaggc tgaaactaaa 420
 ttttacaatg gtctcttggt ttatggagaa ggagctacag atgccagcat ggtggaaggt 480
 gattgccaaa ttcaaatggg gagatttatt tcattcttac aggaactgtc ttgctttggt 540
 acgagggtgct atgaagtggg gatgaacgta gtccaccagt tggctgccct ctatatcagt 600
 aacaagattg cacccaaaat tatagagaca actggagttc attttcagac tatgtatgag 660
 cacttgggag aactgctaac agttttgctc accctggatg aaattattga taatcatatc 720
 acactgaaag accactggac tatgtcaaaa ggttactgaa atctgtccat cacaatcctt 780
 caaaatttgg aattcaggaa gaaaaattaa agccatttga aaggtt 826

<210> 3681

<211> 824

<212> DNA

<213> Homo sapiens

<400> 3681

ctcttgacag cggcggcggc gcagccggtt ccgggttcgg cgcggggcgg ggatgtgaat 60
 cccgatggag cggcccgagg aaggcaagca gtcgccgccc cgcagccct ggggacggct 120
 cctgcgtctg ggcgcgagg agggcgagcc gcacgtcctc ctgaggaagc gggagtggac 180
 catcgggcgg agacgaggtt gcgaccttc cttccccagc aataaactgg tctctggaga 240
 tcaactgtaga attgtagtgg atgaaaaatc aggtcagggtg aacttggaag ataccagcac 300
 cagtggaaca gtgattaaca agctgaaggt tgttaagaag cagacatgcc ctttacagac 360
 tggggatgtc atctacttgg tgtacaggaa gaatgaaccg gaacacaacg tggcatacct 420
 ctatgaatct ttaagtgaag agcaaggcat gacacaagaa tcctttgaga tgggtgccttg 480
 ctgtgttgcc caggctggtc taaaactcct gggatcaagt gatcctcca ccttggcctc 540
 ccaaagtatt gtgattacag ggtctggggg tgggtggcatc tcccctaaag gaagtgggtc 600
 ctctgtggca agtgatgaag tctccagctt tgcctcagct ctcccagaca gaaagactgc 660
 gtccttttcg tcgttggaac cccaggatca ggaggatttg gagcccgaga agaagaaaat 720
 gagangagat ggggaccttg acctgaacgg gcagttgttg gtcgcacaac cgcgtagaaa 780

tgcccaaacc gtccacgagg acgtcagaac acngctgggg aagc

824

<210> 3682

<211> 813

<212> DNA

<213> Homo sapiens

<400> 3682

agagtagagg cggcggcggc ggcgccgga cccagactgg tagtgaggcg ttggaccccg 60
agccgctgca atgccgctgg agctggagct gtgtcccggg cgctgggtgg gcggncaaca 120
cccgtgcttc atcattgccg agatcggcca gaaccaccag ggcgacctgg acgtagccaa 180
gcgcatgata cgcattggcca aggagtgtgg ggctgattgt gccaaagttcc agaagagtga 240
gctagaattc aagtttaatc ggaaagcctt ggacaggcca tacacctga agcattcctg 300
ggggaagacg tacggggagc acaaacgaca tctggagtgc agccatgacc agtacaggga 360
gctgcagagg tacgccgagg aggttgggat cttcttcact gncctctggca tggatgagat 420
ggcagttgaa ttcttgcatt aactgaatgt tccatttttc aaagttggat ctggagacac 480
taataatttt ccttatctgg aaaagacagn caaaaaaggt cgcccaatgg tgatctccag 540
tgggatgcag tcaatggaca ccatgaagca agtttatcag atcgtgaagc ccctcaaccc 600
caacttctgc ttcttgcagt gtaccagcgc ataccgctc cagcctgagg acgtcaacct 660
gcgggtcatt tcggaatatc agaagctctt tcctgacatt cccatagggt attctgggca 720
tgaaacaggc atagcgatat ctgtggccgc agtggctttt ggggaccaag gtgntggaac 780
gtcacatact ttggacaaga cctggaangg gag 813

<210> 3683

<211> 822

<212> DNA

<213> Homo sapiens

<400> 3683

actgcagcct ccattcttga agcggccgcc ggcgcctaga actgtatttc agaaaaaaga 60
aactacagtt ttagcatgca gaaaggaaaa gggagaacaa gccggatcag aagacgaaaa 120
ctctgcggaa gttctgaatc aagaggagtg aatgagagcc acaagtctga atttatagag 180
ctgaggaagt ggctgaaagc taggaagttt caagattcaa acttagcgcc tgcttgtttt 240
ccagggtacag gaagagggct gatgagtcaa acatccctgc aggagggaca gatgattatt 300
tcgttgccctg agagttgcct gctcaccacg gacacagtga ttcgaagcta cttaggggca 360
tacattacta agtggaagcc tctccatct cctctgctgg cgctgtgcac ctttttagtt 420
tcagaaaagc atgctgggca ccgactctct tggaaagcctt acctggagat ttaccacaag 480
gcgtatacct gccctgtttg tttggagccg gaagtgggtga accttcttcc caaatcttta 540
aaagcaaagg ctgaagagca gagagccac gtgcaggagt tctttgcttc ctccagagac 600
tttttctctt ctctgcagcc tctgtttgcg gaggctgttg acagcatctt cagctacagt 660
gccctgctgt gggcttggtg caccgtcaac accagagccg tgtacctgag gcccaggcag 720
cggaatgcc tttcttgag agcccggaca cctgtgcact tcgcttccgt acctggacct 780
gctgaatcat agccacatt gtccaggtna aaagcagcgt tn 822

<210> 3684

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3684

accangcgcg gtccggaggc cgagggcgac cacagcagcc tccgcctcct gctgctccgg 60
actattctgc gctgggctag ncggcggtga cccggactgc gcccggcagt ggcttcgcgg 120
gcgacgcgtc gccatgggct ctgctggag cagcaaagag gagaggcagc cgctgctggg 180
gcccgggctc gggcctgggc tgggggcctc ctggagaagc cgggaggcgg cggcggcggc 240
gctgcccgcg gcggtcccgg gtcccgggcg ggtatacggg cgccgctggc tgggtctgct 300
gctcttctcg ctgctggcgt tcgttcaggg cctgggtctgg aacacctggg gtcccatcca 360
gaactcggcg cgccaggcct acggcttctc cagctgggac atcgcgctgc tcgtgctgtg 420
ggggcccatc ggcttcctgc cctgcttcgc gttcatgtgg ctccctggaca agagaggtct 480

ccggataact gtgctcctga catccttcct tatggttttg ggaactggtc taagatgcat 540
acctatatca gacttaatcc ttaaaaagaa gattaattca tggaggacag atgttaaag 600
gattggcang tccaactgta atgaatgcag naccattttc tctctacgac gtggttttct 660
gcagatgaaa agggccacaa gncacagcta t 691

<210> 3685

<211> 821

<212> DNA

<213> Homo sapiens

<400> 3685

tacacataca ataggaattc tctataattc ccaaggacag gccataattg aaagaactaa 60
tagaacactc aaagctcaat tggttaaaca aaaaaagga aaagacagga gtataacact 120
ccccagatgc aacttaatct agcactctat actttaaatg ttttaaacad ttatagaaat 180
cagaccacta cctctgcaga acaacatctt actggtaaaa ggaacagccc acatgaagga 240
aaactgattt ggtggaaaga taataaaaat aaacatggg aaatggggaa ggtgataacg 300
tgggggagag gttttgcttg tgtttcacca ggagaaaatc agcttcctgt ttggataccc 360
actagacatt taaagttcta caatgaactc actggagatg caaagaaaag tgtggagatg 420
gagacacccc aatcgactcg ccaggtaaac aaaatggtga tatcagaaga acagaaaaag 480
ttgccttcca tcaaggaagc agagttgcca atataggcac aattaaagaa gctgacacag 540
ttagctaaaa aaaaaagcct agagaataca aaggtgacac caactccaga gagtatgctg 600
cttgcgctc tgatgattgt atcaacggtg gtaagtcttc ccaagtctgc aggagcagct 660
gcagctaatt atacttactg ggcctatgtg ctttccac ccttaattng ggcagttaca 720
tagatggata atcctattga agtagatgtt aataatagtg catgggtgcc tggcccacan 780
atgactggtg ccctgnccaa cctgaagaag gaatgatgat n 821

<210> 3686

<211> 817

<212> DNA

<213> Homo sapiens

<400> 3686

```

ttatttgaat attggtgagg aaggctgcac ttgtgaaatg aatgggctca ccctcccagg 60
tcctgtggga ttgtcttcaa ccaccactat caaggatgcc cctaagccag ccactccatc 120
ctctagcagt gggattgcct ctgagttcag cagtgagatg tccacctcag aggtgagcag 180
tgaagtgggg tccactgctt ctgatgagca taatgctggg ggcctggaca ctgccttgct 240
tccgaggcca gagcggcgct gcagcctcca cccaacaccc acctctgggc tgtttcagcg 300
ccagccttct tctgctacct tctccagtaa ccagtctgac aacggcctgg acagtgatga 360
tgaccagccc gttgaggggg tcataaccaa tggcagcaag gtagaggtgg aagtagacat 420
ccactgctgc agggggaggg atctggagaa ctcacccctt ctcatagaga gttctcctac 480
cctgtgttct gaggaacatg ctagagggtc gtgttttggg atccgaagac agaacagtgt 540
gaatagtggc atgctcctgc caatgagcaa ggacaggatg gagttacaga agtctccctc 600
cacctcctgc ctctatggga agaaactctc caatggctct attgtgcccc tagaggacag 660
cctgaacctc attgaagtgg ccacagaagt gcccaagagg aaaactggct attttgctgc 720
ccccactcag atggaaccag aggaccagtt tgntgtgcct catgacctgg aagaagaagt 780
gaaggaacaa atgaaacagc accaggacag ccggctc 817

```

<210> 3687

<211> 800

<212> DNA

<213> Homo sapiens

<400> 3687

```

gtgtggcgag gcggggaagg aagacacggt ggaagaggag gaaggcaagt ttaacctcat 60
gctcatggag tgctccatct gcaatgaaat catccaccct ggatgcctta agattaagga 120
gtcagagggt gtggtcaacg acgagcttcc aaactgctgg gagtgtccga agtgtaacca 180
cgccggcaag accgggaaac aaaagcgtgg ccctggcttt aagtacgcct ccaacctgcc 240
cggctccctg ctcaaggagc agaagatgaa ccgggacaac aaggaagggc aggaacctgc 300

```

caagcggagg agtgagtgtg aggaggcgcc ccggcgcagg tcggatgagc actcgaagaa 360
 ggtgccgccg gacggccttc tgcgcagaaa gtctgacgac gtgcacctga ggaagaagcg 420
 gaaatacgag aagccccagg agctgagtgg acgcaagcgg gcctcatcgc ttcaaacgtc 480
 ccccggttcc tcctctcacc tctcgccgag gccccctcta ggcagcagcc tcagcccctg 540
 gtggagatcc agtctcactt acttccagca gcagctcaaa cctggcaaag aagataagct 600
 tttcaggaaa aagcggcggg cctggaagaa cgccgaggac cgcatggcgc tggccaacaa 660
 gcccctccgg cgcttcaagc aggaacccga ggacgaactg cccgangcgc cccccaagac 720
 caggggagag cgaccacttc ccgcttcagc ttccccaccg ngggacccaa ccaccgaagg 780
 ggcccnnaagg ccccgaggga 800

<210> 3688

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3688

ggctgactta tgttttttgg tgcagcatta tgatttggct tacagttgct atcatactgc 60
 aaagaaagat tttcttaatg atcaagcaat gctttatgca gctgggtgcct tggaaatggc 120
 agcagtgtct gcttttcttc aaccaggagc acctaggcca tctcctgctc attacatgga 180
 tacagcaatt cagacataca gagatatctg caagaatatg gtgttggctg aaagatgtgt 240
 gttgcttagt gctgaacttt taaaaagcca aagcaaatat tcagaggctg cagctctcct 300
 aatacggttg accagtgagg attctgatct tcgaagtgca cttcttttgg aacaggcagc 360
 acattgcttt ataaacatga aaagtcccat ggtagaaaa tatgcatttc atatgatatt 420
 ggcaggccat cgatttagta aagcagggca gaaaaagcat gctttacgct gttattgtca 480
 agccatgcaa gtttacaag gaaaaggctg gtctcttgca gaggatcaca ttaatttcac 540
 tattgggcgc cagtcctata ctcttagaca gctggataat gctgtgtctg cttttaggca 600
 tattctaatt aatggaagta aacaatctgc tgctcaacag ggggctttcc tcagagaata 660
 tctttatggt tacaagaatg taagtcagct gtcaccagat ggcctttgcc acagcttcct 720
 ttaccgnata ttaacagttc aacaacacgg gtttttttgg gncatgacag acgaccagcc 780

ggatggtgaa aaaacaagca gctactcatg taagtt

816

<210> 3689

<211> 766

<212> DNA

<213> Homo sapiens

<400> 3689

aatcatcttg ttggccctga cctcgttga aaacgaagct ccccgaggg tcccggcctc 60
tagggctgct gtgcgggcgg ggggtggcctg gagctatttc cattcggcgg cggaacagg 120
tgccggcgcc tccgccccat ccccgagggc cgcctcccc ggggcggcct ccaggctgcc 180
gagacctata aaggcgccag gttttctcaa tgaagccggg acgcactccg gagcgactg 240
cgtggctgca ccctaccgg gctgccttgg aagtcgtccc cgccgcccct ccgcaccggc 300
atgaagctca tcgtgggcat cggagggatg accaacggcg gcaagaccac gctgaccaac 360
agcctgctca gagccctgcc caactgctgc gtgatccatc aggatgactt cttcaagccc 420
caagacaaa tagcagttgg ggaagacggc ttcaaacagt gggacgtgct ggagtctctg 480
gacatggagg ccatgctgga caccgtgcag gcctggctga gcagcccga gaagtttgcc 540
cgtgcccacg gggtcagcgt ccagccagag gcctcggaca cccacatcct cctcctggaa 600
ggcttctgct ctacagctac aagcccctgg tggacttgta caagccgccg gtacttctga 660
ccgtcccgtg tgaagagtgc aagtggagga gaagtaccg caactacaca gtcccttgat 720
ccccccggnc tnttcgatgg ccacgtgtgg nccatgtacc aaaagt 766

<210> 3690

<211> 598

<212> DNA

<213> Homo sapiens

<400> 3690

tggtagcggc agcagctcgc gcccgcgccc tcctcgtacc cgtgcgcccc cggagaccga 60

tcccccccg cgccccaggc cgggcctgaa cccagcgggt gccgcttctc caccgagggc 120
 ttccacctcc aacgagccat gttccaggct gcaggagccg cccaggccac cccctctcat 180
 gacgccaaag gcggcggcag cagcacggtg cagcgtcca agtccttcag cctgcggggc 240
 caggtgaagg agacctgcgc cgcctgccag aagaccgtgt accccatgga gcggctggtg 300
 gccgacaagc tcattttccg caactcttgc ttctgctgca agcactgtca caccaagctc 360
 agcctgggca gctacgccgc gctgcacggg gagttctact gcaaacccca cttccagcag 420
 ctgtttaaga gcaaaggcaa ctacgacgag gggtttggcc gcaagcagca caaggagctc 480
 tgggcccaca aggaggtgga ccccggnacc aagacggnct gaggcctctg taaccttcca 540
 cccctctgc ggaaggcctg gagccggcan ggggaagggt ggaaggaggt ccaagctt 598

<210> 3691

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3691

gtttcaggtc agacagataa atgtaggagg gaaactttta aacaagaatc acaacctcca 60
 gaaaaaaatt caggacattc tacaagcaaa ggagacagag tggcacaaag tgagagcaag 120
 agaagaaaaa ctgaggaaat tctgaaaagt cagactccaa agggaggaga caagaaggaa 180
 tcctccaagt cattagtgcg acaaggggagc ttactatag aaaaaccag cccaaacata 240
 cccatagaac ttattcccca tataaataaa cagacttctt ctactccttc ttctttagca 300
 ttaacatctg caagtagaat acgagaaaga agtgagtctt tggatcctga ttctagtatg 360
 gacacaaccc ttattctaaa agacacagaa gcagtaatgg cttttctaga agctaaacta 420
 cgtgaagata ataaaactga tgaaggacca gatactccca gttataatag agacaattct 480
 atttcaccag aatctgatgt agatacagct agtacaatca gtctggttac tggagaaact 540
 gaaagaaagt caacccaaaa gcgaaagagt ttactagcc tctataaaga taggtgttcc 600
 acaggttctc cttccaaaga tgttacaaaa tcatcatctt caggtgctag ggaaaaatg 660
 gaaaagaaaa caaaaagtcg ttccacagat gtgggttcaa gagcagatgg ccgtaaattt 720
 ggtcagtcca gtgggagaat aagacagncc tcantagact taacagatga tgaccaaac 780

tctagggacc tcantcttgg catctctgaa attatg

816

<210> 3692

<211> 912

<212> DNA

<213> Homo sapiens

<400> 3692

```

accgcgggca tttacccgtg ctttcccaag cctggaagaa ctcgtcatgc tctttgtagc 60
gtggtgcttc tgttgctcac agaggcgcct gcttcccctt ctgcatgat tggaagtctc 120
ctgaggcctc cccagccatg tggaactgac aacttgcctt tgatgatttt caagagagtt 180
gtgctatgat gtggcaaaag tatgcaggaa gcaggcggtc aatgcctctg ggagtaagga 240
tccttttcca cgggtgtgtc tatgccgggg gctttgccat tgtgtattac ctcattcaaa 300
agtttcattc cagggtctta tattacaagt tggcagtggg gcagctgcag agccatcccg 360
aggcacagga agctctgggc cctcctctca acatccatta tctcaagctc atcgacaggg 420
aaaacttcgt ggacattgtt gatgccaagt tgaagattcc tgtctctgga tccaaatcag 480
agggccttct ctacgtccac tcatccagag gtggcccctt tcagaggtgg caccttgacg 540
aggtcttttt agagctcaag gatggctcagc agattcctgt gttcaagctc agtggggaaa 600
acggtgatga agtgaaaaag gagtagagac gaccagaag acccagcttg cttctagtcc 660
atccttccct catctctacc atatggccac tggggtgggt gcccatctca gtgacagaca 720
ctcctgcaac ccagtttttc agccaccagt gggatgatgg cctnctatt ccctgagaca 780
caacagtatt gaaattgggc ccattaataa cttcacaagt ggcctctcac taaatgtgan 840
aagtgaagga agcttgcagg aaaaaaattt gaacttaca tggtcatgan aagtaagtaa 900
aagaagccat ct 912

```

<210> 3693

<211> 845

<212> DNA

<213> Homo sapiens

<400> 3693

aactccagga atttgtggcg gagagggcaa ataactgcgg ctctcccggc gccccgatgc 60
tcgcaccatg tcgaggcgca agcaggcgaa accccagcac atcaactcgg aggaggacca 120
gggcgagcag cagccgcagc agcagacccc ggagtttgca gatgcggccc cagcggcgcc 180
cgcgggcggg gagctgggtg ctccagtga aacccaggga aatgacgagg tggcgagtga 240
ggatgaagcc acagtaaagc ggcttcgtcg ggaggagacg cacgtctgtg agaaatgctg 300
tgcggagttc ttcagcatct ctgagttcct ggaacataag aaaaattgca ctaaaaatcc 360
acctgtcctc atcatgaatg acagcgaggg gcctgtgcct tcagaagact tctccggagc 420
tgtactgagc caccagccca ccagtcccgg cagtaaggac tgtcacaggg agaatggcgg 480
cagctcagag gacatgaagg agaagccgga tgcggagtct gtggtgtacc taaagacaga 540
gacagccctg cccaccccc caggacataa gctatttagc caaaggcaaa gtggccaaca 600
ctaactgac cttgcaggca ctacggggca ccaaggtggc ggtgaatcag cggagcgagg 660
atgcactccc tgccccctg cctgggtgcca acagcatccc gtgggtcctc gagcagatct 720
tgtgtcttgc agcagcagca agcttcagca gatccagctt naccgacaga tccgattcc 780
aggtgaacat tgtgggcctt ccacgccctt caattaaagc ngggcaaggg gcccacact 840
tnttg 845

<210> 3694

<211> 928

<212> DNA

<213> Homo sapiens

<400> 3694

gagggagagc tggggcctgc tcccggagag atacggctat gtcgatcgaa atcgaatctt 60
cggatgtgat ccgccttatt atgcagtact tgaaggagaa cagtttacat cgggcgttag 120
ccaccttgca ggaggagact actgtgtctc tgaatactgt ggacagcatt gagagttttg 180
tggctgacat taacagtggc cattgggata ctgtgttgca ggctatacag tctctgaaat 240
tgccagacaa aaccctcatt gacctctatg aacaggttgt tctggaattg atagagctcc 300

gtgaattggg tgctgccagg tcacttttga gacagactga tcccatgac atgttaaaac 360
 aaacacagcc agagcgatat attcatctgg agaacctttt ggccaggtct tactttgac 420
 ctctgtaggc ataccagat ggaagtagca aagaaaagag aagagcagca attgcccagg 480
 ccttagctgg cgaagtcagt gtggtgcctc catctcgtct catggcattg ctgggacagg 540
 cactgaagtg gcagcagcat cagggattgc ttctcctgg tatgaccata gatttgtttc 600
 gaggcaaggc agctgtcaaa gatgtggaag aagaaaagtt tcctacacaa ctgagcaggc 660
 atattaagtt tggtcagaaa tcacatgtgg agtgtgctcg attttctcca gatggtcagt 720
 atttggtcac tgggtctggt gatggattca ttgaagtatg gaactttact actggaaaaa 780
 tcagaaaagga tcttaagtac caggcccaag ataactttta tgatgatgga tgatgctggc 840
 cctctgcatg gggtttcanc cngaagatcc cgaaatggtt accactgggg gcccaagaat 900
 ggaaaaaatc aaggnggtgg aagaattc 928

<210> 3695

<211> 877

<212> DNA

<213> Homo sapiens

<400> 3695

tcctggatcat cgatgtcatc cagcagggtg cccacagttg gttcggcaac gctgtcacca 60
 acgccacgtg ggaagagatg tggctgagcg agggcctggc cacctatgcc cagcgccgta 120
 tcaccaccga aacctacggt gctgccttca cctgcctgga gactgccttc cgcctggacg 180
 ccctgcaccg gcagatgaag cttctgggag aggacagccc ggtcagcaaa ctgcaggatca 240
 agctggagcc aggagtgaat cccagccacc tgatgaacct gttcacctac gagaagggtc 300
 actgcttcgt gtactacctg tcccagctct gcggagaccc acagcgcttt gatgactttc 360
 tccgagccta tgtggagaag tacaagttca ccagcgtggt ggcccaggac ctgctggact 420
 ccttcctgag cttcttcccg gagctgaagg agcagagcgt ggactgccgg gcagggtctg 480
 aattcgagcg ctggctcaat gccacaggcc cgccgctggc tgagccggac ctgtctcagg 540
 gatccagcct gaccggccc gtggaggccc ttttcagct gtggaccgca gaacctctgg 600
 accaggcagc tgcctcggcc agcgccattg acatctccaa gtggaggacc ttccagacag 660

cactcttccct ggaccggctt ctggatgggt ccccgctgcc gcangaagtg ggtgatgaac 720
 ctgtccaaag tgctactcct tcctggttgg acttcgatga acgctgagat cccgcatccg 780
 ctggcttgca agaatgaagg tcccgnaacg aacttactat ccttgganct ttcacaaggg 840
 ttgccggcgc tttinctggga aaagccccga atgttca 877

<210> 3696

<211> 887

<212> DNA

<213> Homo sapiens

<400> 3696

gaaaaaaccc tatgaatgta cgcagtggtg gaaagcatta tcctctctta caagttttca 60
 aacacacata agaatgcact ctggagaaag accttatgaa tgtaagatat gtgggaaagg 120
 cttttgttct gccaatcat ttcaaagaca tgaaaaaact cacagtgagg agaaacccta 180
 taaatgcaag caatgtggtg aagccttcat tcattccagt tcccttcgtt atcatgaaag 240
 gattcacact ggagagaaac ctatgagtgt aagcaatgtg ggaaggcctt cagatcttcc 300
 tcacaccttc aattgcatgg taggactcac actggagaga agccctatga atgtcaggaa 360
 tgtgggaaag ccttcagatc tatgaagaac cttcaaagtc atgaaaggac acaaacacac 420
 gtaagaatac actctggaga aagaccttat aaatgtaagc tatgtgggaa aggcttttat 480
 tgtcccaa at cattgcanag acatgaaaaa actcacactg gagagaaact ctatgaatgc 540
 aagcaatgtg gtgaagcctt cagtagttcc agttccttcc gataccatga aaggactcac 600
 actggagaga aaccctataa atgcaagcaa tgtgggaaag ccttcagagc tgcctcagtc 660
 cttcgaatgc atggtaggac tcaccctgaa gataaaccct atgagtgtaa gcaatgaggg 720
 aaagcentca gatctgcctc acacctttga atgcatggta ggacacacaa tcaagagaaa 780
 ccatgaatgt naagaatgtg ggaaaccctt caggtctgcc cagaaccttc gaattcataa 840
 aggacacagc ccncttaaaa tgcattctgg aagctgacca aagnacc 887

<210> 3697

<211> 754

<212> DNA

<213> Homo sapiens

<400> 3697

```

ctggtgcttc tgcttctccg tgaccctgat catctcctc gtggagctgt gcgggctcca 60
ggcccgtctc cccctgtctt ggcgcaactt ccccatcacc ttcgcttgc atgcggccct 120
cttctgcctc tcggcctcca tcatctaccc caccacctat gtccagttcc tgtcccacgg 180
ccgttcgcgg gaccacgcca tcgccgccac cttcttctcc tgcctcgcgt gtgtggctta 240
cgccaccgaa gtggcctgga cccgggcccgc gcccggcgag atcactggct atatggccac 300
cgtaccgggg ctgctgaagg tgctggagac cttcgttgcc tgcctcctc tcgcgttcat 360
cagcgacccc aacctgtacc agcaccagcc ggccctggag tgggtgcgtg cggtgtacgc 420
catctgcttc atcctagcgg ccatcgccat cctgctgaac ctgggggagt gcaccaacgt 480
gctaccctac cccttcccca gcttctctg ggggctggcc ttgctgtctg tctcctctta 540
tgccaccgcc ttgttctctg gccctctac cagttcgatg agaagtatgg cggccagcct 600
cggcgctcga gagatgtaag ctgcagccgc agccatgcct attacgtgtg tgcctgggac 660
cgncgactgg ctgtggcctc tgacgncatc aactactggc gtatgtggct gaactgggtgc 720
actctgccac tggttttggc aaggctaaga ctnt 754

```

<210> 3698

<211> 822

<212> DNA

<213> Homo sapiens

<400> 3698

```

tctcaaataa agatagatgc acacctgaac aaagtatgtc caaccactga gaccatttac 60
aatgatgagt tctatactaa acaagatgta attattacag cattagataa tgtggaagcc 120
aggagatacg tagacagtcg ttgcttagca aatctaaggc ctcttttaga ttctggaaca 180
atgggcacta agggacacac tgaagttatt gtaccgcatt tgactgagtc ttacaatagt 240
catcgggata cccagaaga ggaaatacca tttgtactc taaaatcctt tccagctgct 300

```

attgaacaca ccatacagtg ggcaagagat aagtttgaaa gttccttttc ccacaaacct 360
 tcattgttta acaaattttg gcaaacctat tcatctgcag aagaagtctt acagaagata 420
 cagagtggac acagtttaga aggctgtttt caagttataa agttacttag cagaagacct 480
 agaaattggg cccagtgtgt agaattagca agattaaagt ttgaaaaata ttttaacct 540
 aaggctcttc agcttcttca ctgtttccct cttgacatac gattaaaaga tggcagttta 600
 ttttggcagt caccaaagag gccaccctct ccaataaaat ttgatttaaa tgagcctttg 660
 cacctcagtt tccttcagaa tgctgcaaaa ctatatgcta cagtatatg gattccattt 720
 gcagaagang acttatcagc agatgccctc ttgaatatc tttcagaagt aaagattcag 780
 gaattcaagc cttncaatna ggtggtcata ccgatgaaac tg 822

<210> 3699

<211> 929

<212> DNA

<213> Homo sapiens

<400> 3699

ttcaaaaata tgcttcggtt aaaagaactg ggaatcaaca atatgggcga gctcgtttct 60
 gtcgaccgct atgccctgga taacttgcct gaactcacia agctggaagc caccaataac 120
 cctaaactct cttacatcca ccgcttggct ttccgaagtg tccctgctct ggaaagcttg 180
 atgctgaaca acaatgcctt gaatgccatt taccaaaaga cagtcgaatc cctccccaat 240
 ctgcgtgaga tcagtatcca tagcaatccc ctgaggtgtg actgtgtgat ccaactggatt 300
 aactccaaca aaaccaacat ccgcttcatg gagccccgtt ccatgttctg tgccatgccg 360
 cccgaatata aagggcacca ggtgaaggaa gttttaatcc aggattcgag tgaacagtgc 420
 ctcccaatga tatctcacga cagcttccca aatcgtttaa acgtggatat cggcacgacg 480
 gttttcctag actgtcgagc catggctgag ccagaacctg aaatttactg ggtcactccc 540
 attggaaata agataactgt ggaaaccctt tcagataaat acaagctaag tagcgaaggt 600
 accttgaaa tatctaact acaaattgaa gactcaggaa gatacacatg tgttgcccag 660
 aatgtccaag gggcagacac tcgggtggca acaattaagg gtaacgggac ctttctggat 720
 ggtaccagg tgctaaaaat atacgtcaag cagacagaat cccattccat cttagtgtcc 780

tggaaagtta attccatgtc atgacgtcaa cttaaaatgg tcgtctggca ccatgaagat 840
gataaccctt acatacatat actggcaggg tcccaatcga tgtccatgaa tccacctaac 900
gcatntgcag ccttcncaga ttntgaagg 929

<210> 3700

<211> 936

<212> DNA

<213> Homo sapiens

<400> 3700

agtccagggc cgctgagagt gggggtggct gggagcagcg cagcctccgg aggaggaggc 60
ggaggccgag gaccaggaat caccttcaag cctatgtcgt gaggctttgg cagaaattaa 120
gaaggaaata tctccattgt tcattggcat ggaaaaatgt tcagtgggag gattagagtt 180
gactgaacag actcctgctt tattaggga tatggccatg gcaactagtc tcatggacat 240
aggggattca tttggtcatc cagcttgtcc ttagtcagt agatctagga actcaccagt 300
ggaagatgat gatgatgatg atgatgttgt gtttattgaa tctatacaac ctccttcaat 360
ttctgctcca gcaatagctg atcaaagaaa cttcatatit gcatcatcaa aaaatgaaaa 420
gcctcaagga aattattctg taattcctcc ttcttcaaga gatttggcat ctcagaaagg 480
aaatataagt gagacaattg ttattgatga tgaagaggac atagaaacaa atggaggagc 540
agagaaaaag tcttctgtt ttatcgaatg gggacttcct ggaactagaa acaaaaccaa 600
cgatttggat ttctccactt ccagtccttc aagaagtaag accaagactg gagtaagacc 660
ttttaaccct ggtagaatga atgtggcagg agacttattt cagaatggga gaatttgcaa 720
ctcatcatag tcctgagatg catctaccaa gaaggcta at gncattcttt cagtagaaat 780
caagcaaadc cttncagaa ttttatagta catcttggtt gcctcctgtg aaaacaactg 840
gaatcttaaa aaaggagttt taataagtcc agatgtccat tggagtaa at taccgangnc 900
tggattttat nctaagtggg ggtagctac agggt a 936

<210> 3701

<211> 914

<212> DNA

<213> Homo sapiens

<400> 3701

```

acaagacact tcctttattc tgtgtattgt ggtgatacaa ccagaaatac ctgtgaaaca   60
actgaagaac ctcaacactg ttcccagcag caagctgctg taccaccggc tggatctcct  120
tggccagccc agtgcttgcc tccacttcaa acagctggca accctagaaa gtcccaccat  180
catgctgtct gctggcagct tttcctcccc ctatgagcac ctcagccagc cagagacaaa  240
gcgcatggta gagcactaca ccgcctatct cagcgacaac acccgccctca ttgctaaccc  300
gggcctcaaa ttctctgtca gaaatgaagt aatggctacc agccacgtca cagatgaatg  360
gatgacacaa atggaaatga gtagcctgaa cacttacatt gtccgccgtt acatagcaac  420
acccaatggc gtcctcagaa tttatcctgg ttccctcatg gacaaagcat ttgatccac  480
taggagacaa tggatatctc atgcagtagc taatccaggg ttgatttctt tgactgggtcc  540
ttacttagat gttggaggag ctggttatgt tgtgacaatc agtcacacaa ttcatcctc  600
cagtacacag ctgtcttctg ggcacactgt ggctgtgatg ggcatgtgact tcacactcag  660
atactttctac aaagttctga tggacctatt acctgtctgt aaccaagatg gtggcaacaa  720
aataaggtgc ttcataatgg aggacagggg ttatctgggtg gcgcacccga ctctcatcga  780
cccnnaagga catgccctgt ggagcagcag cacataccca caaggagccc ctggtagcaa  840
atggatatcc tnaacacccc actttgtaaa ggaaaacctg ggcaacaagt ttagtggcng  900
gaacggncca aagg                                           914
    
```

<210> 3702

<211> 894

<212> DNA

<213> Homo sapiens

<400> 3702

```

ttcaagtagc acctctatca gttatggcta aatcctgtcc atctgtgtgt cgctgcgatg   60
cgggtttcat ttactgnaat gatcgctttc tgacatccat tccaacagga ataccagagg  120
    
```

atgctacaac tctctacctt cagaacaacc aaataaataa tgctgggatt ccttcagatt 180
 tgaaaaactt gctgaaagta gaaagaatat acctatacca caacagttta gatgaatttc 240
 ctaccaacct cccaaagtat gtaaaagagt tacatttgca agaaaataac ataaggacta 300
 tcacttatga ttcactttca aaaattccct atctggaaga attacattta gatgacaact 360
 ctgtctctgc agttagcata gaagagggag cattccgaga cagcaactat ctccgactgc 420
 ttttctctgc ccgtaatcac cttagcaca ttccttgggg tttgcccagg actatagaag 480
 aactacgctt ggatgataat cgcataatcca ctatttcac accatctctt caaggtctca 540
 ctagtctaaa acgcctgggt ctagatggaa acctgttgaa caatcatggt ttgggtgaca 600
 aagttttctt caacctagtt aatttgacag agctgtccct ggtgcggaat tccctgactg 660
 ctgcaccagt aaaccttcca ggcacaaaacc tgaggaagct ttatcttcaa gataaccaca 720
 tcaatcgggt gcccccaaa tgctttttct tatctaaggc agctctatcg actggatatg 780
 tccaataata acctaaagta ttacctcan ggtatcttg atgatttgga ncatatacca 840
 cactggattc ttcgcaacaa tccctgggat tgcgggtgcc aganggaaat gggt 894

<210> 3703

<211> 789

<212> DNA

<213> Homo sapiens

<400> 3703

ctttcggagt tagcgcagcg cgaacgctgg gtgcggcgcc ttttaagcgtc gcggtgacac 60
 gtgtgtgagg cgccggaggc ccggatgggt cgcggtctgg gccgcgggcc gaaggagtgc 120
 ccagggtctgc gtaggcttgt ggcgcgcccc cgagagaggcc ggggctctga cgcccgctct 180
 gcggttctgg tgtttgaaca ggccacagtc caggagcgct tacattcagg agtccgcgt 240
 agcacctgcc caaccaaact cagccctccg ttaagatcct ggttccatgc cgcagtagga 300
 cagcaggccc aagtctgcac atcccagtga tgcacatgc caatagtga taagttgaag 360
 gaggccctga aaccgggcc caaggactcg gctgatgatg gagaactggg gaagcttctt 420
 gcctctctg ccaagaaggt ctttttacag aaaatcgagt tcgagccagc cagcaagagc 480
 ttctctacc agctggaggc cttaaagagc aaatatgtgt tgctcaacct caaacagag 540

ggagctagtc gccacaagag tggagatgac ccaccggcca ggagacaggg cagttagcac 600
acgtatgaga gctgtggtga cggagtccca gccccgcaga aagtgtttt cccacaggag 660
cgactgtctc tgaagtggga gcgggtcttc cgcgtgggcg caggacttca caaccttggc 720
aacacctgct ttctcaatgc cccatccant gctttgacct tacacaccaa nctntagcca 780
actaccttg 789

<210> 3704

<211> 891

<212> DNA

<213> Homo sapiens

<400> 3704

gctgctagct cgccggcgacg tcgggccgat tttcccagga tgacagagct gaggcagagg 60
gtggcccatg agccggttgc gccacccgag gacaaggagt cagagtcaga agcaaaggta 120
gatggagaga ctgcatcgga cagttagagc cgggcagaat ccgcaccctt gccagtctct 180
gcagatgata ccccgagggt cctcaatagg gccctttcca acttgtcttc aagatggaag 240
aactggtggg tgagaggcat cctgactttg gccatgattg catttttctt catcatcatt 300
tacctgggac caatggtttt gatgataatc gtgatgtgcg ttcagattaa gtgtttccat 360
gagataatca ctattggcta caacgtctac cactcatatg atctgccctg gttcaggacg 420
ctcagctggg actttctcct gtgtgtaaac tatttcttct atggtgagac agtgacggat 480
tacttttcca ccctgggtcca gagagaagag cctttgcgga ttctcagtaa ataccaccgg 540
ttcatttctt ttactctcta tctaatagga ttctgcatgt ttgtactgag tctgggtcaag 600
aagcattatc gactgcagtt ctacatgttt ggctggaccc atgtgacatt gctgattgtt 660
gtaacacagt cacatcttgg tateccacaac ctatttgaag gaatgatctg gttcattggc 720
cccatatctt gtgtgatctg taatgacatc atggcctata tggttnggct ttttctttgg 780
gcggacccca ctattaagc tgtccccgaa gaagacctgg gaaggcttca ttgggggctt 840
ctttgctact ggggggttgg ncttntgggt gcctatggga ngtcgggtcc a 891

<210> 3705

<211> 879

<212> DNA

<213> Homo sapiens

<400> 3705

```
tatacctaat gataatattt ctgatgagcc aagtctctgt gactgtgatg tacataaaca 60
taatcaaaat gaaaatttag tacctaacaa tcgtgttcaa atacacagaa gccctgcaca 120
gaatttagtt ggagagaaca atcatgatgt tgataacagt gacctcccag tattgtccac 180
tgatcaagat gaaagtttgc tgttatttga agatgttaat acagagttcg acgatgtgag 240
tctttcacc ttgaacagta aaagcgaatc tttacctgtg tcagacaaaa ctgctattag 300
tgaaacgcct ctggtctctc agttcttaat ttctgatgaa cttttgttgg acaataattc 360
tgaactccaa gatcaaatca cccgtgatgc taatagtttt aaatctcgtg atcagagagg 420
tgtacaggaa gaaaaagtga agaatcatga ggatattttt gattgctcta gggatttatt 480
ttctgttacc ttgatttag gattctgtag tccagattct gatgatgaaa tattggaaca 540
tacatcagat agcaatagac ctctagatga tctatatgga aggtatttgg aaattaagga 600
gataagtgat gcaaattatg tttcgaatca agcactaata ccaagagatc atagtaaaaa 660
ttttactagt ggaactgtta ttatcccatc aaatgaagat atgcagaatc caaattatgt 720
catttgccac tgagtgcaca aaaaatgaag aatggtatct cctggtattc tcagtttctt 780
tccagtgcaa aaaaagttag gagtnnccct ctctaaatca aaccattgac tcatttctaa 840
gataagaagg aatcttagaa ccngatctgg aaggaaaag 879
```

<210> 3706

<211> 864

<212> DNA

<213> Homo sapiens

<400> 3706

```
agatatgaaa ctggttctgg agtgagatga gctcggtgg ggacgctact tgagaaggcc 60
tttccccaca ggggtgactta aatgtcccag gctggaaggt ggagcgagaa gtggatgccc 120
```

ccagggctct gggtcacact ccaggatgac ttctcggaac cagctgggtgc agaaggtgct 180
gcaggagctg caggaagcag tggagtgcga aggcctggag ggtctcatag gtgcttcctt 240
ggaggccaag caggtcctgt cttccttcac tctccccacc tgccggggagg gaggccctgg 300
cctccagggtg ctggaagtgg actcggtggc cctgagcctg tatccagaag atgctccacg 360
gaacatgctg ccgctgggtg gcaaggggga gggcagcctg ctgttcgagg cggccagcat 420
gctgctgtgg ggtgacgcag gcctcagcct ggagctgcgg gcccgaccg tggtagagat 480
gctgctgcac agacactact acctccaggg catgatcgac tccaaagtga tgctgcaggc 540
cgtgcgctac tccctatgct ctgaggagtc ccctgagatg accagcttgc cccccgccac 600
gctggaggcc atcttcgatg ccgacgtcaa ggcctcctgt tccccagca gcttcttcaa 660
cgtgtggcac ttgtatgctc tcgcctctgt cttcagcgg aacatctact tcacttacc 720
catgcgcaac ctnaagatcc ggcctacttc aaccgtgtca tccggcccg cgttgcgaca 780
ctgccctcag ctgacatatg tggctggcag cttacagca ttttcgcaca tcttgccctgg 840
gnggctnaaa tgactaaggc cctg 864

<210> 3707

<211> 845

<212> DNA

<213> Homo sapiens

<400> 3707

accggtaccg gccgcgcgct ggtaagtcgc cgggtgtggct gcacctcacc aatcccgtgc 60
gccgcggctg ggccgtcgga gagtgcgtgt gcttctctcc tgcacgcggt gcttgggctc 120
ggccaggcgg ggtccgccgc cagggtttga ggatggggga gtagctacag gaagcgaccc 180
cgcgatggca aggtatattt ttgtggaatg aaaaggaagt attagaaatg agctgaagac 240
cattcacaga ttaatatatt tggggacaga tttgtgatgc ttgattcacc cttgaagtaa 300
tgtagacaga agttctcaaa tttgcatatt acatcaactg gaaccagcag tgaatcttaa 360
tgttactta aatcagaact tgcataagaa agagaatggg agtctgggtca aataaagatg 420
actatatcag agacttgaag aggatcattc tctgttttct gatagtgtat atggccattt 480
tagtgggcac agatcaggat ttttacagtt tacttggagt gtccaaaact gcaagcagta 540

gagaaataag acaagctttc aagaaattgg cattgaagtt acatcctgat aaaaacccga 600
 ataacccaaa tgcacatggc gattttttta aaataaatag agcatatgaa gtactcaaag 660
 atgaagatct acggaaaaag tatgacaaat atggagaaaa gggacttgag gataatcaag 720
 gtggccagta tgaaagctgg aactattatc gntatgaatt ttggtattta tgatgatgat 780
 cctgaaatca tacattggaa agaagagaat tgatgctgct ggtaattctg gaaaactgng 840
 gnttg 845

<210> 3708

<211> 883

<212> DNA

<213> Homo sapiens

<400> 3708

agttttgctc cgaaagactt accgaggagg gagcttgcgg tgcgttctgg gaaagttgct 60
 gggccagctc ctttgtttcc agtctgagcg ttgcgttcgg tttcccagg gtcttctgag 120
 gcaccgcggc tgcgggcttc tgagttcccg gctctccgca gggaagcctc ctcttcgtac 180
 ctcgtttttt ggctcgtggg gggtcctccc accgctggcc gacgcagcca gcatgtccgg 240
 ggtgcgcgca gtgcggatca gcatcgaatc ggcttgcgag aagcagggtcc atgaggtggg 300
 cctggatggc accgagacgt acctgcccc gctgtccatg tcgcagaatc tggcgcgtct 360
 ggcccagcgg atagacttca gccagggttc gggctccgag gaggaggagg cggcggggac 420
 cgagggggac gcgcaggact ggccggggcg cggttccagc gcagaccagg acgacgagga 480
 aggagtggta aaatttcagc cttccctttg gccttgggac tcagtgagga acaatttgag 540
 aagtgccctg acagagatgt gtgttctcta tgatgttctc agtattgtta gggataaaaa 600
 atttatgact cttgatcctg tctctcagga tgcacttctt caaaacagaa tcctcagacg 660
 ttgcaattga tatctaaaaa gaagtcactt gctggagcag cacaatctt attgaaaggg 720
 ggcagaaaga actgacttaa atcagttacc cgaaaaccaa gaaaacagct ncaaagaaga 780
 cttcaattct taacttttgc aatacgggac ncttgggaact ttgaaaagtt gggaataaaa 840
 ttttggaaat tggcttcnaa aggacaggact ttttttcta ana 883

<210> 3709

<211> 848

<212> DNA

<213> Homo sapiens

<400> 3709

```

agaaaatacc ggagttgcag ggtataggta aatttctcaa ggttataggt tggggttctt   60
agaacttttt gtggtgtgtg ttggcctaga gcgactcaga agcgtttagt acttcaccta  120
aaaaagctaa cctctctgct gagcgcgacc ggtatgcggc gcaggatgag cctcagggt   180
tctgttaaga gtctgtctga gaaagccggt ctgcgctgtt cctcgggtggc gaccttaatt  240
atgagatgag ctaatgcttt actgacttaa ccatggcgca gcgggcagtg tggtcataa   300
gccacgaacc gggaactcca ctttgtggca ccgtgagatt ctccagacgg tatccaactg   360
ttgaaaaacg agccagagtc ttcaatggag caagttatgt gcctgttcct gaagatggtc   420
cctttcttaa agcactgctc ttgaaactta gattattgga tgatgataaa gacttcgttg   480
agagtcgtga tagctgttca cgcatcaata aaacatccat ttatggactc ctgataggag   540
gtgaagaact ctggccagtt gttgcttttc tgaagaatga catgatatat gcttgtgttc   600
cactagtiga acaaactctg tccccctgct cgccactaat tagtgtcagt ggagtttcac   660
aaggcttiga atttcttttt gggatacagg atttcttta ttcagggtcaa aaaaatgact   720
ctgagctgaa tacaaaattg agccagttgc ctgacttgct tctgcaggct tggccatttg   780
gtactttatt agatgccact tacagaattc attagataat accaantttg catctngac   840
ttancccc                                         848

```

<210> 3710

<211> 917

<212> DNA

<213> Homo sapiens

<400> 3710

```

ctcttccctt aggtgtttta gttccgcgcg caggccaggc tgcaacctga cggccagatc   60

```

cctcgctgtc ctagtcgctg ctccttggag tcatgttccc agccgcccct tctccgcgga 120
 ccccgggtac cgggtcccga aggggcccgc tggccggact cgggcccggc tccacgcccc 180
 ggacgggctag caggaagggt ctgcccctgg ggtctgcagt cagctcccca gtgctcttct 240
 cgccgggtcgg ccggcgtagc tcgctaagct cggggggaac accaacacga atgttcccac 300
 accactccat aactgagtct gtgaactatg atgtgaaaac gtttgatct tctcttctg 360
 ttaaagtcac ggaagcccta acattggctg aagtcgatga ccagctgacc attaacatag 420
 atgaagggtg atgggcttgt ctgggtgtgca aagagaagct cattatttgg aagattgctc 480
 tgtcacctat tactaagtta tccgtttgca aagaacttca gctgccatct agtgatttcc 540
 actggagtgc cgacttagtg gctctttctt actcttctcc ctcaggtgaa gcacattcta 600
 ctcaggctgt tgctgtcatg gttgccacca gagaaggatc tatccgctat tggccaagcc 660
 ttgctgggtga agatacctac acagaggctt ttgtagattc gggagggtgat aagacttaca 720
 ggttcctaac agcagtgcac gggaggaagt tttattttgg cttcatcagg aagccaacta 780
 attcgggtga tacctganac tcaggaaaga ttcacacat atcctgctca gggcaaggat 840
 gctttcagga atggnccaaa agttcttctc tttttgaatt tatctctaata angactccac 900
 ttttaagggtc nctggat 917

<210> 3711

<211> 827

<212> DNA

<213> Homo sapiens

<400> 3711

atgtgatgca tgctcacgtg tctccgcagc cggctcggga aagaatcccc caagctccat 60
 ttcattgagta agcgtgagag ccgctcagtt tcctccagct ctgctgaagc cagcacagaa 120
 gtagcccaaa ctcttccctc tgctgacagc aaattttagg caaagtcttg agaaagaaga 180
 aattgggtcc agaaaggga gtagaggaga tcagatccca gacctttggg gagaaggagc 240
 aaccgcctct ggcacagccc atcagggaga aagagcaggt tgagaagagt cctaagctaa 300
 cagccccaaa caggtgggtg ttgctcagct ccctgaggca tgtggttgta aggcagaacc 360
 cacagacctt gcaggaagaa ggctctcggg gccatggccc aggtcagcat caacaatgac 420

tacagcgagt gggacttgag cacggatgcc ggggagcggg ctcggctgct gcagagtccc 480
 tgtgtggaca cagcccccaa gaggtagtgg gaagcctctc ctgggggtct ggacagaggc 540
 accacttcca cacttggggc catcttcacg gtcgtcaacg cgtgcctggg tgcagggtta 600
 ctcaacttcc cagcagcctt cagcactgcg gggggcgtgg cagcaggcat cgcactgcag 660
 atgggtatgc tggttttcat catcagtggc cttgtcatcc tggcctactg ctcccaggcc 720
 agcaatgaga ngacctacca ggaagtggta tggctgtgtg tggcaagctg acagggtgtg 780
 tatgtgaagt ggncatcgct gctacacctt ttgnacctgc ttggctt 827

<210> 3712

<211> 700

<212> DNA

<213> Homo sapiens

<400> 3712

ttaagctaca gataaagctt ttgtggtagt gtctgaagtg actagagttt ttttcaaag 60
 ctagcagccc tgaagttgta ttcccaatta ggatatgtca gacgttaagc aggcaccccc 120
 agagtaacta ttatgactga ttaacatatg ccaaaataat ttttaaaaat tatatcaagt 180
 ataacagaac ttattaaaga tttcacaggt tattataccc tcacactagg gtggggtgaa 240
 gctctttact gctctaaact caacaacctg ctgtgtagag gtgaactggc acttatcctt 300
 agtgacagcc tgttcatcct taggggtgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg 360
 tgtgtgtgtg tgtaagagag aaagaaatgt ctacttaaaa tttgcagctc aaaanaacat 420
 tttgcagttc acatgtgcaa gagaatccca cccctgcaaa cttctctcaa tacttgaaac 480
 attaggttac tgctatgatt ttttctatta ttgagtttgt tacttttctc angttttaat 540
 ttgactgtat aagtttgaag cagagtagac taaagataaa agggaacata cacaattcag 600
 aagaacacaa aaaattntgt catatgtttt caattggggc aatgacatat aagtnccctc 660
 tgggtctcaa gganagagga tctacccttg acaaataaaa 700

<210> 3713

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3713

```

actggcgctcc ggcggtgtacc gagagactgg cgtccgggtgt gcaggtggcc acatggatcc   60
tggcagccgg tggcggaacc tgcccagcgg gcctagccta aagcacttga ctgaccctc   120
ttatggaatc ccgcgggaac agcaaaaggc agcgttgcag gagctgacgc gggcgcacgt   180
ggagtccttc aactacgtg tgcacgaggg tctcggcctc gcggtgcagg ctatacctcc   240
ctttgaatit gctttcaaag atgagcgtat ctcttttact attctggatg ctgttatcag   300
tccacctaca gttccaaaag ggaccatctg caaagaggcc aatgtttatc cagcagaatg   360
ccggggccga aggagtacct accgtgggaa gttgacagct gatatcaact gggcagtga   420
tggaatctca aaaggaatca ttaagcagtt tcttggtat gttcccatca tggtgaaatc   480
caagctttgc aacttacgta accttcccc acaagccctc attgagcacc atgaggaggc   540
agaggaaatg gggggctatt ttataatcaa tggcattgaa aaagtcattc gaatgttgat   600
tatgcctcgg agaaattttc ccattgcaat gataagacca aaatggaaaa ccagagggcc   660
tggttatact cagtatggag tttcaatgca ctgtgtgang gaagaacatt ccgctgtcaa   720
tatgaacctt cactactttg gaaaatggna caattatgtt tagnaacttta tttaccgaa   780
aagaactggc ctttctttcc tttgggattt gcacttaaag gcccttgtna actttttctg   840
gattatcana actttta                                     857

```

<210> 3714

<211> 745

<212> DNA

<213> Homo sapiens

<400> 3714

```

atacgggtgca acgggtccgc gggactcttg gatgcgcgga ggtcccgaga ccaggtgcgt   60
gtgctaagct caggtctgag cacggtggat cccatgggtg tggctctgag gaaattgacg   120
cagtggactg ctgccggaca tggaactgga atcctcgaaa tcaccctctt aaatgaancg   180

```


atattgaaag aaattattgt gtttgtggag agttttatct ataaacatcc tcaagaggca 240
aaatttgttt ttgtggaacc acttgaatgg aacacaagtt tggcgccctc agcatttgaa 300
tcaggttatg ttgtcagtga aacaacagtc aaatcagaag aagttgataa aaatggacag 360
cctttgctat ttctctctgt accacaaatt aaaattagga gctttgggca nctgtcacgc 420
ttgttactta ttgccaaaac tggnaagttg aaggaagccc aagcatgtgt tgaagctaac 480
agagacccca tagtaaaaat cctgggctct gattataata caatgaaaga aaactcantt 540
gcattaaata ttcttgcaa aattaccaga gatgatgac ctgaaagtna aattaagatg 600
aagattgcta tgctgcttaa gcaattggat ctgcacctcc tcaatcattc tctaaaacat 660
atttcattag aaataagttt aagtcccatg accggtgaan aaggatatag aactgctcaa 720
acgtttctca ngaaaangga aaccc 745

<210> 3715

<211> 907

<212> DNA

<213> Homo sapiens

<400> 3715

gacctgaccg caagaggcca atggagtgtg ggagctgaaa gggctcttcgc tggcggccgg 60
acagtactgc ttttaaagag acagtgttag ggatcttgga agcacagcca acatgtgtga 120
cattgaagaa gccactaacc aactcctaga tgtgaacctt catgagaacc agaagtctgt 180
acaagtgaca gaaagtgacc tcggaagtga atctgagctt ctagtcacta ttggagccac 240
tgtacctact ggctttgagc aaacagctgc agatgaagtc agagagaaac ttgggtcatc 300
atgcaaaatc agcagagacc gtggcaagat atattttgtc atttcagtgg aaagtctggc 360
acaggttcat tgtctgagat cagttgataa cttattttgtg gtggttcagg agtttcaaga 420
ttaccagttc aaacaaacaa aggaagaagt tctaaaggat tttgaagact tggctggaaa 480
actcccatgg tcaaaccct taaaagtgtg gaaaattaat gccagtttta aaaagaaaaa 540
agcaaagcgc aaaaagataa atcagaattc aagtaaagag aagattaata atggacaaga 600
agtcaaaatc gatcagagaa atgttaaaaa agagttcact agccatgctt tagattctca 660
tatcttagat tattatgaaa atccagccat caaagangat gtatcaacat taataggtga 720

tgatttggca tcttgcaaag atgagactga tgaaagctca aaagaagaac tgacctnaag	780
tgctgaagtt tagagtcaca tgccaacang gcaggagaag aaacattgct ttacctcaaa	840
tgangcttca agaaaatttt ggggggtgcct gtcaagaatt ttttaagtgg aaggccgacn	900
tgaccac	907

<210> 3716

<211> 864

<212> DNA

<213> Homo sapiens

<400> 3716

gtacaaaacc ggagcctcgg gccgggctgc gtgagggagg agggttcatc atgcctagtg	60
gcgtataaga agaccccgcc accggtccct ccacgcacca cttcaaagcc gttcatctca	120
gtcacagtcc agagcagtac tgagtctgcc caggacacct acctggacag ccaggaccac	180
aagagcgagg tgactagccg gtcgggcctg agcaactcgt cggacagcct ggacagcagt	240
acccgaccgc ccagcgtgac acgggggtgga gtcgccccag cccctgaggc cccagagcca	300
cccccaaac atgcagctct gaaaagtga caagggacgc tgaccagctc tgagtccac	360
cccgaggccg cccccaaaag gaaactgtca tcgataggaa tacaagttga ctgcattcag	420
ccagtgccaa aagaggagcc cagtcccgt accaaattcc agtccatcgg ggttcaggta	480
gaggacgact ggccaagcag cgtccctct cacagtatgt cctcccgacg ggacacagac	540
tcggataccc aggatgccaa tgactcaagc tgcaagtcat ctgagaggag cctcccgac	600
tgtacccctc accccaactc catcagcatc gatgccggtc cccggcagge cccaagatt	660
gcccagatca agcgcaacct ctctatgga gacaacagcg acccttgccc tanaggcgctc	720
ctcgctgccc ccacccgacc cctggcttcg agaacttctt cagcttccca acagaaccgg	780
nacaagccag gggccttgcc gccgaaaacg gggtactggg ttccttaaag cttactggaa	840
ggccngaaan cagaaccggg ttgg	864

<210> 3717

<211> 877

<212> DNA

<213> Homo sapiens

<400> 3717

```

agtggggccc ccgcagctct cgtcccggcc gccgctggtg accactcgcc gcccctccgg 60
aggcttcacc cgcgccctcc cccaggacgc gccagcggag ctccggctcc ttcgccctgg 120
acgcggaggc cgcggtgtgc ggggcgacgg cgaggccgga agatggcctg ggtgctcaag 180
atggacgagg tgatcgagtc cgggctggtg cacgacttcg acgccagcct ctcgggcatc 240
gggcaggaac tgggcgccgg cgcttacagc atgagtgatg tcttggcatt gccattttc 300
aagcaggaag attccagcct tccattggat ggtgaaacag agcaccacc ctttcagtat 360
gtgatgtgtg ctgcaacgtc accagcagta aaactgcatg atgaaacgct tacttatttg 420
aaccaaggtc agtcatatga tcggatgctg gataatcgga aaatgggtga tatgcctgag 480
atcaatggaa aattagtaaa gagcatcata agggttgtat tccatgacag acggctacaa 540
tacacagagc atcagcaact tgaaggatgg aagtggaatc gcccaggaga cagacttctt 600
gatttagata ttccaatgtc tgtgggaata attgacacaa ggacgaatcc aagccagtta 660
aatgcggttg aatttctgtg ggaccagca aaacgcacct ctgctttcat tcaggtacac 720
tgcatcagca cagaatttac ttcacggaag cacggaggtg aaaaggaggt gccctttagg 780
atccaggttg acaccttta gcngaataa aatggagaat cccngatca tctacacttc 840
acttactggc aaatcaaagt tttaaagcct aaaggnc 877

```

<210> 3718

<211> 950

<212> DNA

<213> Homo sapiens

<400> 3718

```

tttcagcaga tggaatgcgt ttggctctgg ctgatgctgg tgacactgta gaagatgcca 60
actttgtgga agccatggca gatgcaggta ttctccgtct gtacacctgg gtagagtggg 120
tgaaagaaat ggttgccaac tgggacagcc taagaagtgg tcctgccagc actttcaatg 180

```

atagagtttt tgccagtga tgaatgcag gaattataaa aacagatcaa aactatgaaa 240
 agatgatgtt taaagaagct ttgaaaacag ggttttttga gtttcaggcc gcaaaagata 300
 agtaccgtga attggctgtg gaagggatgc acagagaact tgtgttccgg tttattgaag 360
 ttcagacact tctcctcgct ccattctgtc cacatttgtg tgagcacatc tggacactcc 420
 tgggaaagcc tgactcaatt atgaatgctt catggcctgt ggcaggctcct gttaatgaag 480
 ttttaataca ctcttcacag tatcttatgg aagtaacaca tgaccttaga ctacgactca 540
 agaactatat gatgccagct aaaggggaaga agactgacaa acaaccctg cagaagccct 600
 cacattgcac catctatgtg gcaaagaact atccaccttg gcaacatacc accctgtctg 660
 ttctacgtaa acactttgag gccataaacg gaaaactgcc tgacaacaaa gtcattgcta 720
 gtgaactagg cagtatgcca taactgaaga aatacatgaa gaaagtcag ccatttggtg 780
 ccatgattaa ggaaaatctg gaaaaagatg gggccctcgt attctggatt tgcaattaga 840
 atttgatgaa aangctgggc ttatggagna tatagtctat ctgactaatt cgcttgacct 900
 agaacncctt gaagtcaagt ttggcttcga accgaagata aatcaggga 950

<210> 3719

<211> 810

<212> DNA

<213> Homo sapiens

<400> 3719

tacttttctt gttggaactt ctgacctgtc agaaagattt taccaattat tttggacacc 60
 tggaaggctg tgggtctgat ctacacaaag aaattcgaga cacttactat caacttgttc 120
 tgtttttggt caaagcagtt aaaggattta gtagcctaaa tgacaggctc ttgctccctg 180
 ccttatcctg tgttcagaca gccctgcttc atcttttgga tatgggctgg gaaccctaatg 240
 atctcgctt ctttgttgat attcagttac cagatctcct catgaaaatg tcacaggaga 300
 atataagtgt ccatgacagt gtgatcagcc aatggagtga agaagatgag cttgctgatg 360
 ccaagcagaa ttcagaatgg atggatgagt gtcaggatgg catgtttgag gcctgggtatg 420
 aaaaaatagc ccaggaagat ccagagaagc agaggaaaat gcacatgttc attgctcgct 480
 actgtgacct gttaaatgtg gacatctctt gtgatgggtg tgatgagatt gccccctggc 540

atcgataccg ctgtctgcag tgcagcgaca tggatctctg caaaacttgc ttcctaggtg 600
 ggggtgaagcc tgagggccac ggagacgacc atgaaatggt caacatggag tttacctgtg 660
 accactgcc a gggtttgatc ataggccgga ggatgaactg caatgtttgc gatgactttg 720
 atctttgcta cggatgctat gcagcgaaga aatctcctac nggncatttg cctaccacaca 780
 gcatnacggg ccacccaatg gtaaccattc 810

<210> 3720

<211> 774

<212> DNA

<213> Homo sapiens

<400> 3720

actccggcct tggtagcgagg tggctggcgg ttccgttagg tctgaggag cgatggcggg 60
 acgcgcgttg aagctgctga ccacactgct ggctgtcgtg gccgctgcct cccaagccga 120
 ggtcgagtc gaggcaggat ggggcatggt gacgcctgat ctgctcttcg ccgaggggac 180
 cgcagcctac gcgcgcgggg actggcccgg ggtggctcctg agcatggaac gggcgcctgcg 240
 ctcccgggca gccctccgcg cccttcgcct gcgctgccgc acccagtgtg ccgccgactt 300
 cccgtgggag ctggaccccg actgggtccc cagcccggcc caggcctcgg gcgccgccgc 360
 cctgcgcgac ctgagcttct tcgggggcct tctgcgtcgc gctgcctgcc tgcgccgctg 420
 cctcgggccc acggccgccc actcgtcag cgaagagatg gagctggagt tccgcaagcg 480
 gagcccctac aactacctgc aggtcgccta ctcaagatc aacaagttgg agaaagctgt 540
 tgctgcagca cacaccttct tcgtgggcaa tcctgagcac atggaaatgc agcagaacct 600
 agactattac caaacatgt ctggagtga ngaggccgac ttcaaggatc ttgagactca 660
 accccatatg caagaatttc gaattgggag tgcgacttnt acttagaagg aacagccaca 720
 nggaagcttg tgccccaact anaaggcggg cgcttgcaag aaatactttg gggg 774

<210> 3721

<211> 743

<212> DNA

<213> Homo sapiens

<400> 3721

```

ctcgatagct ttccggaaga aagggatctg ggagcgagat gcgtgtagct agcacgatgc 60
gtcgcgcggt gacgctctgg cccgacgccg acggcctctc agtggctccc ggaggacccg 120
gcgggcccag tgttgagag ctgaaggta ggccaggaca gtgagacctg actccttgct 180
cctaccagcc tactatggct taagaccag ggccagggtc cgttgatgt aacagagcag 240
aggaccagca gatgaatgga caccttgaag caggggagca gcaggaccag aggccagacc 300
aggagctgac cgggagctgg ggccacgggc ctaggagcac cctggtcagg gctaaggcca 360
tgccccgcc cccaccgcca ctggctgcca gcaccccgct cctccatggc gagtttgct 420
cctaccagc ccgaggcca cgctttgcc tcacccttac atgcaggcc ctgcacatac 480
agcggctgcg ccccaaact gaagccaggc cccggggtgg cctgggtccc ttggccgagg 540
tctcaggctg ctgcacctg cgaagccgca gccctcaga ctcagcggcc tacttctgca 600
tctacaccta ccctcggggc cggcgcgggg cccggcgcaa aagccactcg cacctttccg 660
ggcaaaatgg ggcccgnac cttacgaaag agaaccctg cccaaggccc ancgcttggg 720
ccaattggcc cttaanctgt ctg 743

```

<210> 3722

<211> 833

<212> DNA

<213> Homo sapiens

<400> 3722

```

gaatgaaatg actgttactc acatatttac ttcagatggc ctgcatgctg aggttactgg 60
agttggctat aatcaatttg gggaagtgat tgttgatggc gatgttgctc atggattcta 120
taaccagct gtagcagaa ttgttgaggc gggctgtgtg tgcaatgatg ctgtaattag 180
aaacaatact ctaatgggga agccaacaga aggggcctta attgctcttg caatgaagat 240
gggtcttgat ggacttcaac aagactacat cagaaaagct gaataccctt ttagctctga 300
gcaaaagtgg atggctgtta agtgtgtaca ccgaacacag caggacagac cagagatttg 360

```

ttttatgaaa ggtgcttacg aacaagtaat taagtactgt actacatacc agagcaaagg 420
 gcagaccttg acacttactc agcagcagag agatgtgtac caacaagaga aggcacgcat 480
 gggctcagcg ggactcagag ttcttgcttt ggcttctggt cctgaactgg gacagctgac 540
 atttcttggc ttggtgggaa tcattgatcc acctagaact ggtgtgaaag aagctgttac 600
 aacactcatt gcctcaggag tatcaataaa aatgattact ggagattcac aggagactgc 660
 agttgcaatc gccagtcgtc tgggattgna ttccaaaact tccagtcagt ctcaggagaa 720
 gaaatagatg caatggatgt tcaacagctt ttacaaaata gtaccaaang gttgcagtan 780
 ttttacagag cttagcccaa nggcaccagg atgaaaaatt atttaagtcg ctt 833

<210> 3723

<211> 843

<212> DNA

<213> Homo sapiens

<400> 3723

ctgaaaaaag ctcgcttgtc cccggaaccg ccctgctgcc gccgcctgct tcctctgctc 60
 gcggtttagcc cgtcagtcctc tgctctgtgc gcgcctccat ctgggccatg gatggcgggg 120
 atctgatgag cttctttctt ctggcatcat taacggacct ttaccatga atagttctac 180
 tccttctaca ggtgtgtatg gctttcttag aaatggcttc tgaggaagct gccgttacta 240
 tgggtgaatta ttacactcct attactcctc accttcgaag ccagcctggt tatattcagt 300
 attccaatca cagagaactt aagactgaca atctacctaa tcaagctcga gccaagctg 360
 cactgcaggc tgtcagtgcc gtccaatcag gaagcctggc ctttcttgga ggtccttcca 420
 atgaaggcac agtcctacct gggcagagcc ctgtgcttcg aataattatt gaaaacctct 480
 ttaccctgt taccctggaa gttcttcac agatattttc taaatttggc acagtcttga 540
 agattatcac ctttacaag aataatcagt ttcaagcctt gcttcagtat gctgaccag 600
 taaatgcaca ttatgcaaaa atggctctgg atggccagaa tatctataat gcatgctgac 660
 tctgcgcatt gacttcttca agctcatcag ccttaatgtg aaatataata atgacaaaag 720
 cagagacttc actcgttaa accttctac tggatgaggc cagccatccc ttgaacctct 780
 atgnttctgc ttttgggccc cgggtataat tcttccata tcangggctt ctggatttgc 840

cca

843

<210> 3724

<211> 899

<212> DNA

<213> Homo sapiens

<400> 3724

```

atttggctgg ggctaggctt ccggggctct gcagtcctcg gcgtgtgctg gcagcttcgg 60
agccccaccga gccgggcggc taggatgatg aaccggacga ccccgacca ggagctggcg 120
ccagcgtcgg agcccggtgtg ggagcggccg tggtcgatgg aggagatccg caggagcagc 180
cagagctggg cgctggcggc cgacgcgggc ctactacagt ttctacagga attctcacag 240
caaactatct ctaggacca tgaaatcaag aaacaagtgg acggactaat tcgggaaacc 300
aaagccacag attgtgcct gcataatgtc ttcaatgact tccttatgct ctctaatacc 360
cagttcattg agaatcgtgt atatgatgaa gaaggctctg taggcagtga tcgtggcagt 420
attgtggaca ctgaggaaga gaaagaagag gaggagtcag atgaagattt tgcccatcat 480
agtgacaatg aacaaaaccg gcacaccaca caaatgagtg atgaggaaga ggatgatgat 540
ggctgtgacc ttttcgctga ctctgagaag gaggaggaag atattgagga cattgaagaa 600
aatactagac ctaaaagaag cagacctaca tcgtttgcag atgagctggc tgccgcatca 660
aggggggatgc cgtgggtcga gtggacgaag agcccgacaa ccttaccctc aggagaagca 720
aaacctcgga agacactcaa agagaagaag gaaaggagaa cttctttcag accatgaaag 780
angataactt tattcgacc ccccccaagc ttgacccgac caaggaactt tttcgccatt 840
ttggcttttt ggaaggtngg ncctggttca atgggggggc caanggggct tcttttgga 899

```

<210> 3725

<211> 847

<212> DNA

<213> Homo sapiens

<400> 3725

ctaggcgcgt	ttcctgaagg	tcgatggcca	ggtgggtcttc	ataaactata	ctgccttgtg	60
atgcctccct	agaaatgaga	ggtctcaata	ccagctcaga	ccatgtggac	cgcggtatgag	120
attgctcagc	tatgctatga	acactatggg	atcaggctgc	ccaagaaggg	gaagcctgag	180
ccaaaccatg	agtggacatt	attggcagcg	gtggtgaaga	tacaatctcc	agctgacaag	240
gcctgcgaca	cccctgataa	gccggtgcaa	gtgacaaagg	aagtgtgtc	aatgggaaca	300
ggaacaaaaat	gcataggaca	gtccaaaaatg	aggaagaacg	gaaccagacc	ctctccagct	360
tccatatgtc	ttcacctggt	gtcctatctt	tgccgcagga	gacatcctca	atgatagcca	420
tgctgaggtc	atagccagaa	ggagtttcca	aaggtacctt	ctccaccaac	tccagttggc	480
agccaccctg	aaagaggata	gcattctttgt	cccaggaact	caaaaaggag	tgtggaaact	540
tagacgagac	ctcatttttg	tgtttttctc	cagccataca	ccctgtgggg	atgcctccat	600
cattccgatg	cttgagcttg	aagatcagcc	ttgctgtcct	gtcttcagaa	attgggcca	660
caactcatca	gtagaagcca	gtagtaacct	ggaagctcct	ggaaatgaaa	gaaaatgtga	720
agaccctgac	agtccgtgaa	ccccaaaaga	tgangctttg	agcctgggga	ctgcaagccc	780
aggggaaggtc	acccaacngg	agcaagcttc	accattcaga	agtttttggg	caaagccnga	840
aaaaagt						847

<210> 3726

<211> 825

<212> DNA

<213> Homo sapiens

<400> 3726

cacgataaag	gggacatgcc	gggagttgca	gtaccctcag	gaagaagtca	ttgtcatgga	60
catggaccct	tttcttcaact	gtgtgatccc	aaacttcac	caaagccaag	acttcttaga	120
agggcttcag	aaggaactga	tgaacttgga	cttccatgag	aatctgatga	tttgaagaag	180
agaagagagc	ctcacatctc	cactttaagg	aaaattctgt	ttgaagattt	ccggtcctgg	240
ctttctgata	tttctaaaat	tgacctggaa	tcaaccattg	acatgtcctg	tgctaaatat	300
gaattcactg	atgccttgct	gtgccatgat	gatgagctgg	aagggcgccg	gattgccttc	360

atcctgtacc tggttccttc ctgggacagg agcatgggtg gtaccctgga cctgtacagc 420
 atagatgaac actttcagcc gaagcagatt gtcaagtctc ttatcccttc gtggaacaaa 480
 ctggttttct ttgaagtatc tcctgtgtcc tttcaccagg tgtctgaagt gctgtctgaa 540
 gaaaagtcac gtttgtctat aagtggctgg tttcatggtc catcattgac tcggcctccc 600
 aactactttg aaccccccat acctcggagc cctcacatcc cacaagatca tgagattttg 660
 tatgattgga tcaaccctac ttatctggac atggattacc aagttcaaatt tcaagaagag 720
 tttgaagaaa gttctgaaat tctnctgaan gagtttctta agcctgagaa attcacgaaa 780
 agtctgtgaa ggccttggag cattggacat gtgggaatgg ganca 825

<210> 3727

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3727

gcagtgggtca tctatttcca gggcttccga gtggacctgc caatcaagtc ggcccgtac 60
 cgtggccagt acaacaccta tcccatcaag ctcttctata cgtccaacat ccccatcatc 120
 ctgcagtctg ccctggtgtc caacctttat gtcctctccc aaatgctctc agctcgtctc 180
 agtggcaact tgctggtcag cctgctgggc acctggctcg acacgtcttc tgggggcca 240
 gcacgtgctt atccagttgg tggcctttgc tattacctgt cccctccaga atcttttggc 300
 tccgtgttag aagaccggt ccatgcagtt gtatacatag tgttcatgct gggctcctgt 360
 gcattcttct ccaaaacgtg gattgaggtc tcaggttctt ctgccaaaga tgttgcaaag 420
 canctgaagg agcagcagat ggtgatgaga ggccaccgag agacctccat ggtccatgaa 480
 ctcaaccggt acatccccac agccgcggcc tttggtgggc tgtgcatcgg ggccctctcg 540
 gtcttggtctg acttcctagg cgccattggg tctggaaccg ggatcctgct cgcagtcaca 600
 atcatctacc agtactttga gatcttcgtt aaggagcaaa gcgaggttgg cagcatgggg 660
 gccctgctct tctgagcccg tctcccggac aggttgagga actgctccag aacgcctcgg 720
 aagggaact ctcatcatgg cgcgtgtgtc tgcgcatatg gacttttaatt aatggtnntg 780
 aattcgaatt ctttcattcc actgngtaaa gtgctagaca ttttccaatt aaaatttgct 840

tttatcctgg cactggcaaa aagaactgng aaagtgaanaa tttattcagc cn 892

<210> 3728

<211> 820

<212> DNA

<213> Homo sapiens

<400> 3728

gattgccggc attcccgtt ctgctggttg ctcatgctg caggctgcgg ccgtcagccc 60
 tcgctcgcat tggaggcgct gaggtgccgg ggcagcaagt gacatgtcgt cgggcctccg 120
 cgccgtgac ttccccgct ggaagcgcca catctcggag caactgaggc gccgggaccg 180
 gctgcagaga caggcggtcg aggagatcat cctgcagtat aacaaattgc tggaaaagtc 240
 agatcttcat tcagtgttgg ccagaaaact acaggctgaa aagcatgacg taccaaacag 300
 gcacgagata agtcccggac atgatggcac atggaatgac aatcagctac aagaaatggc 360
 ccaactgagg attaagcacc aagaggaact gactgaatta cacaagaaac gtggggagtt 420
 agctcaactg gtgattgacc tgaataacca aatgcagcgg aaggacaggg agatgcagat 480
 gaatgaagca aaaattgcag aatgtttgca gactatctct gacctggaga cggagtgcct 540
 agacctgcgc actaagcttt gtgaccttga aagagccaac cagacctga aggatgaata 600
 tgatgccctg cagatcactt ttactgcctt ggagggaanaa ctgagggaanaa ctacggaaga 660
 gaaccaggag ctggtcacca gatggatggc tgagaaagcc caggaagcca atcggcttaa 720
 tgcagagaat gaaaaagact tcaggangcg gcaaagcccc ggcttgcaag aaagagcttt 780
 gcagaaacca gccaaangga accttttacc agttcgnaac 820

<210> 3729

<211> 870

<212> DNA

<213> Homo sapiens

<400> 3729

caagaagttc tggagataaa aaaaatacga gtgatagaag tagcaagaca caagcctctg 60
tcaaaaaaga agagaaaaga tcgtctgaga aatctgaaaa aaaagaaagc aaggatacta 120
agaaaataga aggtaaagat gagaagaatg ataatggagc aagtggccaa acatcagaat 180
cgattaaaaa aagtgaagaa aagaagcgaa taagttccaa gagtccagga catatggtaa 240
tactagacca aactaaagga gatcattgta gaccatcaag aagaggaaga tatgagaaaa 300
ttcatggaag aagtaaggaa aaggagagag ctagtctaga taaaaaaaga gataaagact 360
acagaaggaa agagatcttg ccttttgaaa agatgaagga acaaagggtg agagaacatt 420
tagttcgttt tgaaaggctg cgacgagcaa tggaacttcg aagacgaaga gagattgcag 480
agagagagcg tcgagagcga gaacgcatta gaataattcg tgaacgggaa gaacgggaac 540
gcttacagag agagagagag cgcctagaaa ttgaaaggca aaaactagag agagagagaa 600
tggaacgcga acgcttggaaggaggaaacgca ttcgtattga acaggaacgt cgtaaggaag 660
ctgaacggat tgctcgagaa agagaggaac tcagaaggca acaacagcag cttcgttatg 720
aacaagaaaa aaggaattcc ttgaaacgcc cacgtgatgt agatcatagc gagatgatcc 780
ttactggacg agaataaaag tggctctaga tcagatgcnc gatttggcnt ggatccgctc 840
tntcgccaca gacagattat gcttgtcccg 870

<210> 3730

<211> 806

<212> DNA

<213> Homo sapiens

<400> 3730

accgccttcg ccgcggacct tcagctgccg cggtcgctcc gagcggcggg ccgcagaggt 60
tcaagcgatt ctctgcttc agcctccgga gtagctggga ttacaggcac gtgccaacac 120
accagccac caaatgccga gaagagatgg acaagccact gatcagcctc cacctgggtg 180
acagcgatag tagccttgcc aaggtccccg atgaggcccc caaagtgggc atcctgggta 240
gcggggactt tgcccgtcc ctggccacac gcctgggtggg ctctggcttc aaagtgggtg 300
tggggagccg caacccaaa cgcacagcca ggctgtatcc ctcagcggcc caagtgactt 360
tccaagagga ggcagtgagc tccccggagg tcacttttgt ggctgtgttc cgggagcact 420

actcttcact gtgcagtctc agtgaccagc tggcgggcaa gatcctgggtg gatgtgagca 480
 accctacaga gcaagagcac cttcagcatc gtgagtccaa tgctgagtac ctggcctccc 540
 tcttccccac ttgcacagtg gtcaaggcct tcaatgtcat ctctgcctgg accctgcagg 600
 ctggcccaag ggatggtaac aggcagggtgc ccatctgcgg tgaccagcca gaagccaagc 660
 gtgtgtctc ggagatggcg ctgccatgg gcttcatgcc cgtggacatg ggatccctgg 720
 cgtcagcctg ggaggtggan gccatgcccc tgcgccttct tcccggnctg gaangtgccc 780
 acccttggtg gcccttgggg cttctt 806

<210> 3731

<211> 754

<212> DNA

<213> Homo sapiens

<400> 3731

acgtggtacg gaaccggcgc cgcgcttgct gctggtaaca gggccttgcc tagtgggcct 60
 tccttcccag gtcgcccctc agtctccact agagacagga ctgaccagtt gctcttcctt 120
 ccaagaacct tcgagatctg cggctctgggg tctggttgaa agatggcggc cctcactacc 180
 ctgtttaagt acatagatga aaatcaggat cgctacatta agaaactcgc aaaatgggtg 240
 gctatccaga gtgtgtctgc gtggccggag aagagaggcg aaatcaggag gatgatggaa 300
 gttgctgctg cagatgttaa gcagttgggg ggctctgtgg aactggtgga tatcggaaaa 360
 caaaagctcc ctgatggctc ggagatcccc ctccctccta ttctgctcgg caggctgggc 420
 tccgaccac agaagaagac cgtgtgcatt tacgggcacc tggatgtgca gcctgcagcc 480
 ctggaggacg gctgggacag cgagcccttc accctggttg agcgagacgg caagctgtat 540
 gggggagggtt cgactgatga taagggcccg gtggccggct ggataaacgc cctggaagcg 600
 tatcagaaaa caggccagga gattcctgtc aacgtccgat tctgcctcga aggcattgaa 660
 ggagtcaagg ctcttgangg cctaanacga agcttgattt ttgccccgg gaaaggaaca 720
 ccattctttt naagggattg tggggaccta atgg 754

<210> 3732

<211> 839

<212> DNA

<213> Homo sapiens

<400> 3732

```

acacctcgtg gagtccggcc ggaagagcaa ccgagatgaa ggtgaagatg ctgagccgga    60
atccggacaa ttatgtccgc gaaaccaagt tggacttaca gagagttcca agaaactatg   120
atcctgcttt acatcctttt gaggtcccac gagaatatat aagagcttta aatgctacca   180
aactggaacg agtatttgca aaaccattcc ttgcttcgct ggatggtcac cgtgatggag   240
tcaattgctt ggcaaagcat ccagagaagc tggctactgt cttttctggg gcgtgtgatg   300
gagaggttag aatttggaat ctaactcagc ggaattgtat ccgtacaata caagcacatg   360
aaggctttgt acgaggaata tgtactcgct tttgtgggac ttcttttttc actgttggtg   420
atgacaaaac tgtgaagcag tggaaaatgg atgggccagg ctatggagac gaggaagagc   480
cattacatac aatattagga aagacagtgt atactgggat tgatcatcac tggaaagaag   540
ctgtttttgc cacatgtgga cagcaagtag acatttggga tgaacaaaga actaatccta   600
tatgttcaat gacctgggga tttgacagta taagtagtgt taaatttaac ccaattgagg   660
taatgttttt ttttaagtat gntttactta ttatggctta ataatttcag ttctggttag   720
aaaacttttg aatgtatgat agaaacttct gaattttaat ggngntttgg catttttgca   780
gttttcccca ttggaaatga attctggaac ccttgnttca aatcccaact tggtttccc   839

```

<210> 3733

<211> 773

<212> DNA

<213> Homo sapiens

<400> 3733

```

tacaagctca agtctgtggc ccaccttccc tggcgcgatgc tcacctacaa ggccctcaac    60
acattcatcg acgacctgtt cgcctttgtc atcaagatgc ccgttatgta ccggatcggc   120
tgcctgcggg acggcccacc tggctgtgga cgggccagcc cgacctcaca ctgcctccca   180

```

ccccctctcca gatgtggttt tcttcatcta cctctaccaa cgggtgatct accgcgtcga 240
 cccaccccga gtcaacgagt ttggcatgag tggagaagac cccacagctg ccgcccccg 300
 ggccgagggt cccacagcag caggggccct cagccccaca cctgcacca ccacgaccac 360
 cgccaccagg gaggaggcct ccacgtccct gccaccaag cccaccagg gggccagctc 420
 tgccagcgag cccaggaag cccctccaaa gccagcagag gacaagaaaa aggattagtc 480
 gagactggtc ctcacctgct ccggtcctg gcgaccacta cccctgcgtc ccggccccct 540
 cgctccccct ccctgtcgcc ctttccttg acagatcagg ccggggcggt gggaggcccg 600
 cctcagggtca gggcccagcg tgtgacgtag gggccggggc aggccagggt ttgtttgtgg 660
 aggcgctgtc tgtccctctg tcctctgtgt ttcagcatct tggcctgcag cccagcacca 720
 ctgggaatca tggatgaactg atgcagcgtg ccganggggt gggttgggcc gnn 773

<210> 3734

<211> 808

<212> DNA

<213> Homo sapiens

<400> 3734

aatccgatgg cagccgccag cagaggacaa gatcaatggc atcctcctgg gcttccggat 60
 ccgataccgg gagctgctct atgaaggact gaggggcttc acgcttcgag gcatcaacaa 120
 cccagggggc acatgggctg agcttaccta cctgaacaag cacaggcggt acgagatacg 180
 gatgagcgtg tacaacgctg tgggtgaggg gccctccagc ccccgagcagg aggtctttgt 240
 tggggaggca gtgcccacag cagcacctcg taacgtggtc gtccacggcg ccacggccac 300
 acagctggac gtgacttggg agccacctcc gctggacagc cagaatggag acatccaggg 360
 gtacaagatt tatttctggg aagcccagcg ggggaacctc acagagcgag tgaagacgct 420
 tttcccggct gagaacagcg tgaagctcaa gaacttgact ggctacacgg cctacatggt 480
 cagcgtggcc gccttcaacg ccgctgggga tgggcctcgg agcaccacca cccaaggcca 540
 gaccagcaa gcagcccca gcgctcccag ctcggtcaag ttcagtgagc tgaccacaac 600
 ctcagtgaat gtgtcctggg aagccccgca gtccccaat ggcatcctgg agggctacag 660
 gctgggtgtac gagccctgca gcccgtgga tggagtcagc aagatcgtga ccgtggacgt 720

gaaggggaac aagccccctg tggctgaagg tgaaggacct gcggangggg tgacctacan 780
gttccgcatt agaaccanac ttactac 808

<210> 3735

<211> 701

<212> DNA

<213> Homo sapiens

<400> 3735

aagatggcgg cggggaggta ggcagagcag gacgccgtg ctgccgccgc caccgccgcc 60
tccgtccag tcgcctctgg tccttcaaac tcacacctcc cgggaggagc tgccttggcg 120
ccgggtcccg cggggaaaat ggtggagcca gggcaagatt tactgcttgc tgctttgagg 180
gagagtggaa ttagtccgaa tgacctcttt gatattgatg gtggagatgc agggcttgca 240
actccaatgc ctaccccgtc agttcagcag tcagtgccac ttagtgcatt agaactaggt 300
ttggagaccg aagcagcagt tcctgttaaa caagaaccag agactgtacc tactccagca 360
ctattaaatg tgaggcagcc tccatctact acaacatttg tgctgaatca aataaatcat 420
cttccaccct tgggatctac aattgtaatg actaaaacac cacctgtaac aaccaacagg 480
caaaccatca ctttaactaa gtttatccag actactgcaa gcacacgccc gtcagtctca 540
gcaccaacag tacgaaatgc catgacctct gcaccttcaa aagaccaagt tcagcttaaa 600
gatctactgg aaaataatag tcttaatgaa ctgatgaaac taaagccacc tgctaataatt 660
gcttaccag tancaacaag cnnctactga tgtaagccaa t 701

<210> 3736

<211> 876

<212> DNA

<213> Homo sapiens

<400> 3736

gtgccacatc ctggctctgt gcgctgggct cccgccgtg ctgcgcgcct ggcgcggtgcc 60

ccccgcgccg cccgtctcgg gccccggacc cagtccgcat ccgtcgtccg gccccgtgct 120
 gccgcccgcg ttctacccgc gctacgtgct accgctcgcc ttccggcaagt acttcgcgtc 180
 cgtgtcagcg cacgtcagca tctggaaggt gccccgtgcc tatgcacaca ccgtcaaggc 240
 caccatgccc atctgggtgg tccctcctgtc ccggatcatt atgaaggaga agcagagcac 300
 caaggtatac ttgtcactca tccccatcat cagcgggtgtc ctgctggcca ccgtcaccga 360
 gttgtctttt gacatgtggg gactcgtcag cgccctcgcc gccacgtgtg gcttctcgtc 420
 tcagaacatt ttctccaaaa aggtcttgcg agattcacgg atccaccatc tccggtgct 480
 caacatcctg ggctgccacg ccgtcttctt tatgatcccc acctgggttc tgggtggacct 540
 ctcggctttc ctggtcagca gcgacttgac ctacgtctac cagtggccct ggacgctcct 600
 gctcctggct gtcagcggct tctgtaactt tgcccagaat gttatcgct tcagcatcct 660
 caacctcggt agccccctga gctactcggg cgcaatgcc ccaaaagaat catggtcatc 720
 acggtgtccc tgatcatgct tgcgcaacct agtcaccaac accaacgtct gggcatgatg 780
 accggcatcc tgggggtctt nctttataac aagaacnagt accaatgcaa aaccaagcaa 840
 gccaaaggaag caccttcttc cccgttacca caagcn 876

<210> 3737

<211> 836

<212> DNA

<213> Homo sapiens

<400> 3737

aagatggcgg cggggaggta ggcagagcag gacgccgtg ctgccgccgc caccgccgcc 60
 tccgctccag tcgcctctgg tccctcaaac tcacacctcc cgggaggagc tgtcctggcg 120
 ccgggtcccc cggggaaaat ggtggagcca gggcaagatt tactgcttgc tgctttgagg 180
 gagagtggaa ttagtccgaa tgacctcttt gatattgatg gtggagatgc agggcttgca 240
 actccaatgc ctaccccgtc agttcagcag tcagtccac ttagtgcatc agaactaggt 300
 ttggagaccg aagcagcagt tccgtttaa caagaaccag agactgtacc tactccagca 360
 ctattaaatg tgaggcagcc tccatctact acaacatttg tgctgaatca aataaatcat 420
 cttccacct tgggatctac aattgtaatg actaaaacac cacctgtaac aaccaacagg 480

caaaccatca cttaactaa gtttatccag actactgcaa gcacacgccc gtcagtctca 540
gcaccaacag tacgaaatgc catgacctct gcaccttcaa aagaccaagt tcagcttaaa 600
gatctactga aaaataatag tcttaatgaa ctgatgaaac taaagccacc tgctaataatt 660
gctcaaccag tagcaacagc agctactgat gtaagcaatg gtacagtaaa gaaagagtct 720
tctaataaag aaggactaga atgtggataa acgacatgaa gatgaggagt ttttncctaa 780
ccatgaaggt tcctgttgta aaagaagatg atgaaccnna ggaagaagat gaagaa 836

<210> 3738

<211> 877

<212> DNA

<213> Homo sapiens

<400> 3738

gtttttggag ctgcgacgcc aaacatggcg tgttcctaga agccgctttc ggcatcagta 60
ggcggcgggcg tggggctctgg cagcgtgggg agagggacca accgacgcca cttcgtgttg 120
ggaagtggga gcgggagggc cgggcaattc ccgaccgaac caaacggttt ccatggatct 180
caatagtgcc agcactgttg ttcttcaggt gttacacag gccaccagtc aggatactgc 240
tgtgttaaaa ccagctgagg agcagttgaa gcagtgggag acacagccag gtttctattc 300
agtgttgctg aatattttca ccaaccacac tttggatata aatgtaaggt ggcttgctgt 360
actgtatfff aaacatggaa ttgatcgcta ctggagacgt gtagcacctc atgctctctc 420
agaggaggag aaaactactc tgcgtgcagg gtcatcacc aacttcaatg aaccaataaa 480
ccagattgca actcagattg cagtgtcat tgcaaaagtt gctagattgg attgtcccag 540
acagtggcct gaactaattc ccactcttat agagtctgtt aaagtccagg atgatcttcg 600
acagcacaga gcattactta ctttctatca tgttaccaag aacttggcat ctaaagcact 660
tgctgtgat agaaaactat tttatgattt ancttctgga atttataatt ttgcctgctc 720
tctgtggaat caccacacag acacattcct gcaagaagtt tcttcttgca atgaactgca 780
acntttgagt tcactagaac gaacactgnt atcattgaaa gtgctgcgta agttaactgg 840
taatggattt gtggaaacct cataagaatn tggaggt 877

<210> 3739

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3739

```

acacaaagga aatgcaggca gatgatgaac tgcttcatcc attaggtcca gatgataaaa 60
atattgaaac aaaagaggga tctgaattct cattttcaga tggagaagtg gcagaaaaag 120
cagaggttta caggtcagaa aatgaaagtg aacggaactg tctagaagaa tcagagggct 180
gctattgcag atcatctgga gaccctgaac aaataaagga agacagtita tcagaagaga 240
gtgctgatgc acggagtttt gaaatgactg aattcaatca agcttttagaa gaaataaaaag 300
ggcaggttgt tgaaaacaac tctgtaactg aattttctga ggagaaaaac agaactgaaa 360
attacaacag gcaagatggt cagagagtgc aaggaggagt ccctgctggc tctgacgagt 420
atgaagatga atgccctcat ctaattgcct tgcgtcatt aaatagagaa ttcaggcctt 480
tcagagatga agaaaatgtg ggagctatga atcagtatag aacaagaact ctgagtatca 540
cttcttcagg cagtgtgtga agctgttcaa caattcctcc agaactgggtg aaacagaagg 600
tgaaacgtca gttgacaaaa cagcaaaaat cagctgtcag acgtcgattg cagaaaggag 660
aagcaaatat attaccaag caacgtaggg aaaacatgca aaatatcaaa tcaagtttgg 720
aagcagctag cttttgggga gaataatata ttaggatct tggatatggt taatatattt 780
tttaaaggta ctggaattcc nttttgaacc ctcatggcc ttttttgagc ccaggntatc 840
atatattaat aaatnaa 857

```

<210> 3740

<211> 874

<212> DNA

<213> Homo sapiens

<400> 3740

```

atgcgcataa cggccgcat cttaacagcg cgttcccggt ggcgctctgag gaacagcatc 60

```

tctgccttcc tgttcacggt gaccttcgct tgggtgcctc ctggcctcag caacctgaca 120
 attctgtcgt gtcccgagag atggctaata aatggcgctt gatgacagat gagtaatgcc 180
 tgttgctgaa agattgacgg tatgagatca tctttctcaa gatgttttct gtcttcatga 240
 gtcaaaattt gaagaggaaa ggatgggtggc tgggtgggtg acaaattact ctcaggactc 300
 agtgaccttt gaggatgtgg ctgtggactt caccaggag gagtggactt tgctggatca 360
 aactcagaga aacttataca gagatgtgat gctggagaac tataagaatc tagttgcagt 420
 agattgggag agtcatatta ataccaaatg gtcagcacct cagcagaatt ttttcaggg 480
 gaaaacatcc agtgtgggtg aaatgaattc agagtaaaag ggagaatctc aatgaaataa 540
 atttggaata cttctatgaa ccatcattaa tttcaccaa caggagagaa accattttgg 600
 agaggaactg tttgacttta accaatgtga aaaagccttg agtgaacact catgccttaa 660
 gactcacagg agaacttact ttagaaagaa aacctgtgag tgtaatcaat gtgaaaaagc 720
 cttcagaaaa ccctctatct ttactttaca caagaaaact gatatcggag angaactttc 780
 tactgtaatc aatgtgnaac agccttttagc caacatctac atcttggttg caagaaaact 840
 acccaaattc acatcttggt tgcaanaaac ttnc 874

<210> 3741

<211> 931

<212> DNA

<213> Homo sapiens

<400> 3741

tttaaaaaata aagagcatat gaagtactca aagatgaaga tctacggaaa aagtatgaca 60
 aatatggaga aaagggactt gaggataatc aaggtggcca gtatgaaagc tggaactatt 120
 atcgttatga ttttggtatt tatgatgatg atcctgaaat cataacattg gaaagaagag 180
 aatttgatgc tgctgttaat tctggagaac tgtggtttgt aaatttttac tccccaggct 240
 gttcacactg ccatgattta gctcccatat ggagagactt tgctaaagaa gtggatgggt 300
 tacttcgaat tggagctgtt aactgtgggt atgatagaat gctttgccga atgaaaggag 360
 tcaacagcta tcccagtctc ttcatTTTTT ggtctggaat ggccccagt aaatatcatg 420
 gagacagatc aaaggagagt ttagtgagtt ttgcaatgca gcatgttaga agtacagtga 480

cagaactttg gacaggaaat tttgtcaact ccatacaaac tgcttttgct gctgggtattg 540
gctggctgat cactttttgt tcaaaaggag gagattgttt gacttcacag acacgactca 600
ggcttggtgg catgttggat ggtcttggtta atgtaggatg gatggactgt gccaccagg 660
ataacctttg taaaagctta gatattacaa caagtactac tgcttatttt cctcctggag 720
ccacttttaa taacaaagag aaaaccgtat tttggttctc actcattgga tgctaaagaa 780
attattttgga agtaatacat aatcttncag attttgactc tttcgcaaac acctaaaga 840
cgtttggtc atcatcgng ctgtattttt cattttggaa aaatgaaaat caatgatcct 900
gacctgaaaa ctaaaactnt cntaaaatga c 931

<210> 3742

<211> 867

<212> DNA

<213> Homo sapiens

<400> 3742

actattttgc tgccatgttt actaatgatg tcagagaggc aagacaagaa gaaataaaaa 60
tggaagggtgt agaaccaaat tcgttgtggc ccttgatcca gtatgcttat acaggccgcc 120
ttgaattaaa agaagataat attgagtgcc tgttatctac agcttgcctt cttcagcttt 180
cacaggttgt agaagcatgc tgtaagtttt taatgaaaca gcttcatcca tccaactgtc 240
ctggaattcg ttcttttgct gatgcccaag gttgtacaga tttgcataaa gtggctcaca 300
attatactat ggagcatttc atggaagtaa tcagaaacca ggaatttgta ttattaccag 360
ccagcgaaat tgcaaagctc ttggctagtg atgacatgaa cattcctaag gaggagacaa 420
tattgaatgc acttcttact tgggtccgtc atgatttgga acagagacgg aaagatctaa 480
gtaaactttt ggcttatatt aggctacctc ttcttgcacc acagttcctg gcagacatgg 540
aaaataatgt actttttcgg gatgatatag aatgtcagaa actcattatg gaagcaatga 600
agtaccattt attaccagag agacgaccca tgttaciaag tcctcggaca aaacctagga 660
agtcaactgt tggtagatta tttgcagttg ggggaatgga ttcaacaaaa ggagcaacaa 720
gcattgaaaa agtatgatct ccgtacaaat atgtggactc cagtagcaaa tatgaatggg 780
angaggctac agttcgggtg tgcagtgcta gatgacaaac tgtatgtggt tggaggaana 840

aatggactga agactttgna tactgga

867

<210> 3743

<211> 848

<212> DNA

<213> Homo sapiens

<400> 3743

```
ccgtgcggcc agagctctag agagtgggtgc cgccttccaa ccttcttccc caagccctgg 60
tgcccggtc cgcctcttct cgaatctttt ccacagccca aaatggccgc agaggtgtat 120
tttggcgatc tagagctctt cgagccgttc gaccaccag gggagtcgat tccgaagccc 180
gttcacactc gttcaagga cgacgacggc gacgaggagg acgaaaatgg ggtcggcgac 240
gcgagctac gggagcggct tcggcagtgc gaggagacca tcgagcagct ccgcgccgag 300
aatcaagaac ttaaagaaa attgaacatt ctgactcgac cgagtggaat attggtgaac 360
gatactaagt tagatggacc tatattacag attctattca tgaacaatgc tatttcaaag 420
caatatcatc aagaaataga ggaatttgta tcaaatttag taaaaagatt tgaggaacag 480
cagaaaaatg atgtggaaaa gacttccttt aatcttttgc cccagccatc cagtattgtg 540
ctagaggagg accacaaagt ggaagagtcc tgtgccatta aaaacaacaa ggaagctttc 600
agtgtttag gaagtgtcct gtattttact aatttttgcc ttgataaatt ggggcaaccc 660
gcttctaaat gaaaaccctc agctttccga aggatgggaa atacccaagt accatcaagt 720
cttcagcccc attggttctc tagaagggca agaaatacaa gttaaggcaa aaanggccaa 780
agcctnactg gtttcaaatg ggggntcttg aagaaccccc caatggaaag aattggccca 840
atggcctt 848
```

<210> 3744

<211> 793

<212> DNA

<213> Homo sapiens

<400> 3744

```

agtctccgca gagcccgggc gggagtagct ggtggacccc gttgagctgc cgaacttccg 60
ggactcccc gcgaccctt cccagcttcc cgtccgctcc gccgcagcga ttgtctcggt 120
gggttgattc ggcacaaacc gcccgaccca ggggcccgtg cgcgtgtgga aggggaagca 180
ctccccctgt ggtcgcctgg aggtgcgctg gaggaggggg tgacataacc agggactcga 240
ggtccgccgt gggaatgac caggaactgc tcttggtctt gagcgggtac cctgggtcca 300
ttttcacctg gaacaagcgg agtggcctgc aggtatcgca ggacttccct ttcctccacc 360
ccagtgagac cagtgtcctg aatcgactct gccggctcgg cacagactat attcgcttca 420
ctgagttcat tgaacagtac acgggccatg tgcaacagca ggatcaccat ccattctaac 480
agggccaaagg tgggttacat ggaatctacc tgcgggcctt ctgcacaggg ctggattctg 540
ttttgcagcc ttatcgccaa gcactgcttg atttgaaca agagttcctg ggtgatcccc 600
atctctccat atcacatgac aactacttct agaccagttc cagcttcttt ttcctctgt 660
gatggttgta gtagaacaaa ttaaaaagtc aaaagattca tggntgtcaa atcctggaaa 720
cagtctacaa acacagcttg tggggggttg gcttctgttc naagtgcact gggaaaaaat 780
cctggcccgn ttg 793

```

<210> 3745

<211> 590

<212> DNA

<213> Homo sapiens

<400> 3745

```

aaaaaaaaaa gtacgcggac aagatggcgg cggcagcagt cgacagcgcg atggaggtgg 60
tgccggcgct ggcggaggag gccgcgccgg aggtagcggg cctcagctgc ctcgtcaacc 120
tgccgggtga ggtgctggag tacatcctgt gctgcggctc gctgacggcc gccgacatcg 180
gccgtgtctc cagcacctgc cggcggctgc gcgagctgtg ccagagcagc gggaaggtgt 240
ggaaggagca gticcgggtg aggtggcctt cccttatgaa aactacagn cccaccgact 300
acgtcaattg gttggaagag tataaagttc ggnaaaaagc tgngttagaa gcgcggaaga 360
ttgtagcctc gtictcaaag aggttctttt cagagcacgt tccttgtaat ggcttcagt 420

```

acattgagaa ccttgaagga ccaganattt tttttgagga tgaactggtg tgtatcctaa 480
 atatggaagg aagaaaagct ttgacctgta aatactacgc anaaaaaatt ctttactacc 540
 tgcggcaaca gaagatctta antaatctta atgcctttct tcancagcca 590

<210> 3746

<211> 840

<212> DNA

<213> Homo sapiens

<400> 3746

agccgcgcga cgccgccgcc ttagaacgcc tttccagtac tgctagcagc agcccgacca 60
 cgcgttaccg cacgctcgcg cctttccctt gacacggcgg acgccggagg attggggcgg 120
 caatttgtct tttccttttt tattaataatt atttttcctg cctgttgttg gatttgggga 180
 aattttttgt ttgtttttta tgatttgtat ttgactgaga gaaacccact gaagacgtct 240
 gcgtgagaat agagaccacc gaggccgact cgcgggccgc tgcacccacc gccaggaca 300
 aaaggagccc agcgctacta gctgcacccg attcctccca gtgcttagca tgaagaaggc 360
 cgaaatggga cgattcagta tttccccgga tgaagacagc agcagctaca gttccaacag 420
 cgacttcaac tactcctacc ccaccaagca agctgctctg aaaagccatt atgcagatgt 480
 agatcctgaa aaccagaact ttttacttga atcgaatttg gggaagaaga agtatgaaac 540
 agaatttaat tctcttgaca ttgtgtcaa tttttccct gtattctgtt catctccttt 600
 tgaagactgc caatgaagga gggctcttat tatatgaaca attgggatat aaggcatttg 660
 gattagttag aaagcttgca gcatctggat caattacaat gcagaatatt ggagctatgt 720
 caagctacct cttatagtga aatatgagtt gcctttgggt gatccaggca ttaacgaaca 780
 ttgaagatna aactggattg nggtatctga acnggaacta ttgggtctgt ggggcatttg 840

<210> 3747

<211> 806

<212> DNA

<213> Homo sapiens

<400> 3747

```

gctgacgggt ttgaaatggc tncgatgtta gccgggaccc gactcagatc gatgctatag 60
aagacaaaca aggaaaggtt ttttttcctt ttgcatcatg gctcaatttg gaggacagaa 120
gaatccgcca tgggctactc agtttacagc cactgcagta tcacagncag ctgcactggg 180
tggtcaacag ccatcactcc ttggagcatc tctaccatt tatacacagc aaactgcatt 240
ggcagcagca ggccttacca cacaaactcc agcaaactat cagttaacac aaactgctgc 300
attgcagcaa caagccgcag ctgcagcagc tgcattacaa cagcaatatt cacaacctca 360
gcaggccctg tatagtgtgc aacaacagtt acagcaaccc cagcaaacc tcttaacaca 420
gccagctgtt gcactgccta caagccttag cctgtctact cctcagccaa cagcacaat 480
aactgtatca tatccaacac caaggtccag tcaacagcaa acccagcctc agaagcagcg 540
tgttttcaca ggggtggtta caaaactaca tgatacattt ggatttgngg atgaagatgt 600
attctttcag cttagtgtg tcaaagggaa aaccccccaa gtaggtgaca gagtattggt 660
tgaaagctct tataatccta atatgccttt taaatggaat gcacagagaa ttcaaact 720
ccaaatcaga atcagtcgga aaccagcca ttactgaaga ctcttctgnt ggactttanc 780
caattgnacc acagacaaca atttgg 806

```

<210> 3748

<211> 727

<212> DNA

<213> Homo sapiens

<400> 3748

```

atcactcaag atggctgccc ccatcaagat gaccgggggtg tgccgggggg aaaggggcag 60
catgatggtc tgagatgggt tagcgtcgga ccatgtggca gtttctgagg ctggggagcc 120
ggataatggg ggggtggggc cgttgggggg taaaggggca atagcgtcct ttcacaggct 180
aacctcggct ctcccagtc ctctggacta aaatggggaa cacattgggc ctggcaccaa 240
tggggacttt gccccgccg agccccgcc gagaggaacc cctgccaac cctgggagct 300
tcgatgagct gcaccgtcta tgcaaagatg tattcccagc acagatggag ggagtgaagc 360

```

tcgttgtcaa caaggttctg agcagccatt tccaggtggc gcacactata cacatgagtg 420
 ccctgggctt gccgggatat cacctccatg cggcctatgc aggggattgg cagctcagtc 480
 ccactgaggt gttccccact gtggtagggg atatggacag cagtggcagc ctgaacgccc 540
 aggtcttgct cctcttggca gaacggctcc gagctaangc tgtcttcaga cgcagcangc 600
 caagttcctg acatggcagt ttgatggcga gtatcgggga gatgactaca cagccacttn 660
 tgaccctagg aaatcctgac ctgattgggg aatccgtgat catgggttgc ttacttttcc 720
 tgganaa 727

<210> 3749

<211> 798

<212> DNA

<213> Homo sapiens

<400> 3749

aaggaaattc aggaagcaaa agctcccagt ccttccataa accggcaaac cagcattgaa 60
 acggatagag tgtctaagga gttcatagaa tttctcaaga ccttccacaa gacaggccaa 120
 gaaatctata aacagaccaa gctgtttttg gaaggaatgc attacaaaag ggatctaagc 180
 attgaagaac agtcagagtg tgctcaggat ttctaccaca atgtggccga aaggatgcaa 240
 actcgtggga aagtgcctcc agaaagagtc gagaagataa tggatcagat tgaaaagtac 300
 atcatgactc gtctctataa atatgtattc tgtccagaaa ctactgatga tgagaagaaa 360
 gatcttgcca ttcaaaagag aatcagagcc ctgcgctggg ttacgcctca gatgctgtgt 420
 gtccctgtta atgaagacat cccagaagtg tctgatatgg tgggaaggc gatcacagat 480
 atcattgaga tggattccaa gcgtgtgcct cgagacaagc tggcctgcat caccaagtgc 540
 agcaagcaca tcttcaatgc catcaagatc accaagaatg agcccggcgt cagcggatga 600
 cticctcccc accctcatct acatttggtt gaagggaac ccccccacgcc ttcagtctaa 660
 tatccagtat atcacgcgt tctgcaatcc aagcccgaact gatgactgga gaggatggct 720
 actatttcac caatctgggc tgnctggggc tttcattggg aagctngacg cccagtcttt 780
 tgaatcttaa ntccggga 798

<210> 3750

<211> 869

<212> DNA

<213> Homo sapiens

<400> 3750

```

aacttcatgc cctctttact cttgcccag ctgaggattc tgtccttggt atagtgaata 60
aagaaaaacc agatatattt cagctgggtt cagtgaact gccaaaatcc tcaagccagg 120
aagtagaagc caaggagctg tcctttgttt tggattacat aaaccagtca cccaagtgca 180
ttgccttttg aaacgaggga gtatatgttg ctgcagtacg ggaattttac ttgtctgttt 240
atTTTTTcaa aaagaaaaca acatcaaggt ttactttatc atcatcaaga aataagaagc 300
atgctaaaaa caattttaca tgtgtagcat gtcacccaac ggaagactgc atcgcatctg 360
gtcacatgga tggcaaaatt cgtctttgga ggaattttta tgatgataag aaatatacgt 420
acacatgttt acattggcac catgatatgg ttatggattt ggctttttca gtgacaggca 480
ccagtctgct gagtggcggg cgtgaatctg tacttgtaga gtggcgcgat gcaatagaga 540
agaataagga gtttctcccg cgtttaggag ctactattga acatatctca gtctcgctg 600
caggagattt attctgcact tctcactctg ataataagat aataattatt caccgaaacc 660
ttgaagcatc cgcagtaatt caaggcctag tgaagatag gagtatcttc actggtttga 720
tgattgatcc aagaactaaa gctttgggtt tgaatggnaa acctggccac ctgcagttta 780
tctcttcaga gtgataacag tatncattta gatttatcng caggaatttt taatgatatg 840
gctgatcaaa ttgactacaa gntgatttg 869

```

<210> 3751

<211> 803

<212> DNA

<213> Homo sapiens

<400> 3751

```

ttttgcttcg atgtgctcta ctgtcacctg tatggatacc agcagccccg gacccccga 60

```

ttcaccaacg agccctaccc actgtttgta acatggaaga ttggctcgaga caaaagatta 120
 cgtggatgca tgggtacttt ttctgccatg aatttgcatt caggactcag ggagtacaca 180
 cttaccagtg cccttaaaga tagccgtttt cccccaatga caagggatga gctgccacgg 240
 cttttctgct cagtgtctct gctcactaac tttgaagatg tctgtgatta tttggactgg 300
 gaggtgggtg tacatggcat tagaatagaa ttcataatg aaaaaggatc aaaacgcacc 360
 gccacctacc taccggaggt tgcaaaggag caaggatggg accatataca gaccatagac 420
 tccttattga ggaaaggagg atacaaagct ccgattacta atgaattcag gaaaaccata 480
 aaactgacca ggtatcgtag tgaaaagatg accctgagct atgctgaata cttgctcat 540
 cgccagcatc atcatttcca aaatggcatt gggcatcccc ttccgccata caaccattat 600
 tcctgacact gagccgcaca accagtcact gggcctctct gcagacctct tccaggagac 660
 cctacacctt cttggtctag ctatctcttt tactgtccat tttatgatga tagtttccgn 720
 tgnatgggtg aagcttcgac attggcaact aagatcatca tggtaacggg tagaaaaatg 780
 gcnttttggg taagaaccct ggt 803

<210> 3752

<211> 837

<212> DNA

<213> Homo sapiens

<400> 3752

agagccgcga gctggaccag ccgtgcaaat ctctagaaga tgacggtgtt ctttaaaacg 60
 cttcgaaatc actggaagaa aactacagct gggctctgcc tgctgacctg gggaggccat 120
 tggctctatg gaaaacactg tgataacctc ctaaggagag cagcctgtca agaagctcag 180
 gtgtttggca atcaactcat tcctcccaat gcacaagtga agaaggccac tgtttttctc 240
 aatcctgcag cttgcaaagg aaaagccagg actctatttg aaaaaaatgc tgccccgatt 300
 ttacatttat ctggcatgga tgtgactatt gitaagacag attatgaggg acaagccaag 360
 aaactcctgg aactgatgga aaacacggat gtgatcattg ttgcaggagg agatgggaca 420
 ctgcaggagg ttgttactgg tgttcttcga cgaacagatg aggctacctt cagtaagatt 480
 cccattggat ttatccact gggagagacc agtagtttga gtcataccct ctttgccgaa 540

agtggaaaca aagtccaaca tattactgat gccacacttg ccattgtgaa aggagagaca 600
gttccacttg atgtcttgca gatcaagggt gaaaaggaa agcctgtatt tgcaatgacc 660
ggccttcgat ggggatcttt cagagatgct ggcgtcaaag ttagcaagtc tgggatcttg 720
ggcctctaaa aatcaaagca gccactttt tcagcactct ttaaggagtgc gcctcanact 780
tcatcaagcc tntatctcat ccccgaggacc ttccgaagag ancttccaat gaacccc 837

<210> 3753

<211> 778

<212> DNA

<213> Homo sapiens

<400> 3753

agagctgaac ctgcatcccg gacctgcggc gaccgtcgta caccatgggc ctccacctcc 60
gcccctaccg tgtggggctg ctcccggatg gcctcctgtt cctcttgctg ctgctaattgc 120
tgctcgcgga ccagcgctc ccggccggac gtcaccccc agtggtgctg gtccctgggtg 180
atttgggtaa ccaactggaa gccaaactgg acaagccgac agtggtgcac tacctctgct 240
ccaagaagac cgaaagctac ttcacaatct ggctgaacct ggaactgctg ctgcctgtca 300
tcattgactg ctggattgac aatattcaggc tggtttaca caaaacatcc agggccaccc 360
agtttctga tgggtgtgat gtacgtgtcc ctggctttgg gaagacctc tcaactggagt 420
tcctggaccc cagcaaaagc agcgtgggtt cctatttcca caccatgggtg gagagccttg 480
tgggctgggg ctacacacgg ggtgaggatg tccgaggggc tccctatgac tggcgccgag 540
ccccaaatga aaacggggccc tacttctctg ccctncgcga gatgatcgan gagatgtacc 600
agctgtatgg gggccccgtg gtgctggttg ccacagtatg ggcaacatgt acacgtctta 660
ctttctgcac ggcagccgaa gcctggaagg acaagtatat ccggccttcg tgtactgggtg 720
cncctggggg gcgtgggncaa aacctggcgt ctgcttcaga gaaacaacgg tccantat 778

<210> 3754

<211> 808

<212> DNA

<213> Homo sapiens

<400> 3754

```

gaaaatgcta aacgactcaa taaactaaga gatgagcttg ttaaactcaa atcctttgca 60
ctcatgctgg tggatgaaag acaaatgcac attgaacaac ttggcctgca aagccagaaa 120
gtacaggatc ttactcagaa gctgagggaa gaagaagaga agctcaaagc cattacttcc 180
aaatccaaag aagacagaca gaaattgctc aagttagaag tggactttga acacaaggct 240
tcgagggttt ctcaagagca tgaagagatg aacgctaaac tggctaataca agagtctcac 300
aataggcaac ttagactcaa gctggttggc ttaacccaaa gaatcgagga gctagaagag 360
accaacaaaa atctgcagaa ggcagaggaa gaacttcaag aattaagaga taaaattgcc 420
aaaggagaat gtggaaactc tagcctcatg gcagaagtgg aaaatcttcg aaagcgtgtg 480
cttgaaatgg aaggtaaaga tgaggagatc actaaaactg aatcccagtg tagggaattg 540
aggaagaagc tgcaagagga agaacaccat agtaaggagc tcagacttga agttgagaag 600
ctacagaaga gaatgtctga actagagaaa ttggaagaag catttagcaa gagtaaattct 660
gagtgcaccc agctacattt aaatctggag aaagaaaaga acttaccaaa gacctgctaa 720
atgaattgga ngtgggcaag aatcnagtta aagaattgga atggtctgaa gtagaatgga 780
aaaggctgaa ttaanctaaa agatgatc 808

```

<210> 3755

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3755

```

ttcggaactc gccaggggcg ccgccggcgg cggagggagc gtgactgcgc tgcgcagggc 60
gctaggaggc attgtcgccg ctccagccct tttgtgagaa gcagaccagc ctgggggctg 120
gcggcaggac acctgtgtct gcatgctgaa gaagatgggt gaggccgtgg ccagagtagc 180
aaggaaggtc aacgagacgg tggagagcgg ctctgacact ctggagctcc acctggaggg 240
gaacttccta caccgcctcc ccagcgaggt cagtgccttg cagcacctca aggccattga 300

```

cctgtccccg aaccagttcc aggacttccc tgagcagctt accgccctgc cggcgctgga 360
gaccatcaac ctggaggaga acgagatcgt agatgtgccc gtggagaagc tggccgcat 420
gccagccttg cgcagcatca acctccgctt caaccactc aacgccgagg tgcgcgtgat 480
cgccccgccg ctcacatcaagt ttgacatgct catgtctccg gaaggcgcaa gagccccct 540
accttacgcc accctnctca tgcccaccca gcaagggaca gaggccacag gcctggaacc 600
ctggaaggga gggaggccca tgggaggcca agcctggggg ctgggggcgg gtggccgagc 660
aacacgtggt ggggtgggtg caactggtct ggatagatag cttacagcag tantgggctc 720
ttggaatgcc caagggaata gcaaggtggg gccttgaacc tggacttggg actnacantt 780
gttgggcaaa ctcaggc 797

<210> 3756

<211> 850

<212> DNA

<213> Homo sapiens

<400> 3756

taaatgtcca ctttgcctcc cggattgtag ttgaccccaa acccacaacc acagacattg 60
gctctgatgt gacccttacc tgtgtctggg ttgggaatcc cccctcact ctcacctgga 120
ccaaaaagga ctcaaatatg gtcctgagta acagcaacca gctgctgctg aagtcggtga 180
ctcaggcaga cgctggcacc tacacctgcc gggccatcgt gcctcgaatc ggagtggctg 240
agcgggaggt gccgctctat gtgaacgggc ccccatcat ctccagttag gcagtgcagt 300
atgctgtgag gggtagcgtt ggcaagggtg agtggttcat tgggagcaca ccacccccag 360
accgcatagc atgggccttg aaggagaact tcttgaggtt ggggaccctg gaacgctata 420
cagtggagag gaccaactca ggcagtgggg tgctatccac gctcaccatc aacaatgtca 480
tggaggccga ctttcagact cactacaact gcaccgcctg gaacagcttc gggccaggca 540
cagccatcat ccagctggaa gagcgagagg tgttacctgt gggcatcata gctggggcca 600
ccatcggcgc gagcatcctg ctcactttct tcttcacgc cttggtattc ttcctctacc 660
ggcgccgcaa aggcagtcgc aaagacgtga ccctgaggaa gctggatatc aaggtggaga 720
cagtgaaccc gagagccact tacgatgcat tcttgaccgg gaggatgaca ccggcagccg 780

tcttcacaag caaccccggg tcattgaagg ncatnttact nggtcgttta aaggatgatg 840
gtgggatctg 850

<210> 3757

<211> 894

<212> DNA

<213> Homo sapiens

<400> 3757

aggagatcct ggggccttac ctactagcgg aatcgactga agagacgcct gccagtgcgg 60
gaggtaggaa gctcgatccc caaagaaaag agcgagtggg caggcagctg cgagacagaa 120
ccggagtgtg cagggtcctt agaggccggt tcctggctctg tgctgctctc ctggaagcca 180
tggtacaggc agagctcagg gcgatcccca ggtgagggca gcggctctgc ctgggattcc 240
accgcagtac aaccgggtag atgcgggggtg gagaagaaag gatgttgcct gcactgctcg 300
ccaatagcac cctgagaggc tacatttgca gaagcagcag cagcagaaga cacagcgccg 360
gtccaggagg cggctcgagc tgttcgtaaa gtcgcccagc agctttttct ccgtagtatg 420
cgagttgaca aaacagccag agaacagggc tccccattac aatcttttcg agatcttttc 480
ccttgctaac cggatctgat ttgtgcgaaa acatgccttg cacttgtaac tggaggaaact 540
ggagacagtg gattcgacct ttagtagcgg tcatctacct ggtgtcaata gtggttgcgg 600
ttcccctatg cgtgtgggaa ttacagaaac tggaggttgg aatacacacc aaggcttggg 660
ttattgctgg aatctttttg ctggtgacta ttcctatata actgtgggtg atattgcaac 720
acttaagtgc attatacaca acctgaact acnaaaacca ataattaagg attctttgga 780
tggtacctat ttacaggttt aaatagttgg atacttttgn aatatcccgg aattgcaata 840
tatgtggatc cctgcanaaa atgcttttga agcttatgna attacaact tttt 894

<210> 3758

<211> 736

<212> DNA

<213> Homo sapiens

<400> 3758

```
gcgaagctga gaggcctatg gatgaggagg acgcggcggc cccggtttgt tctcatgaac 60
aagatggatg acctcaacct gcactaccgg tttctgaatt ggcgccggcg gatccgggag 120
attcgagagg tccgagcttt ccgatatcag gagaggttca aacatatacct tgtagatgga 180
gatactttaa gttatcatgg aaactctggg gaagttggct gctacgtggc ttctcgaccc 240
ctgaccaagg acagcaatta ttttgagggtg tctattgtgg acagtggagt ccgggggcacc 300
attgctgtgg ggctgggtccc tcagtactac agcttggatc accagcctgg ctggttgcct 360
gactctgtag cctaccatgc tgatgatggc aagctgtaca atggccgagc caagggccgc 420
cagtttgggt caaagtgcaa ctccggggac cggattggct gtggcattga gcctgtgtcc 480
tttgatgtgc agaccgcca gatcttcttc accaaaaatg ggaagcgggt gggctctacc 540
atcatgcca tgtccccaga tggactgttc ccagcagtgg gcatgcactc cctgggtgaa 600
gaggtgcggc tgcacctnaa cgctgaactg ggccgtgagg acnacagcgt catgatggtg 660
gacagttacc aggatnaatg gggcccggct acatgatgtc agaatctgtg ggactcttgc 720
tggaataactt anggaa 736
```

<210> 3759

<211> 767

<212> DNA

<213> Homo sapiens

<400> 3759

```
actgccggcc tgcgcggtac tcaactgccg cctccgcggt acccactgcc ggcctccgcg 60
ctacccggcc gcagcgcgcg agtcacatgg aagctcctga ggagcccgcg ccagtgcgcg 120
gaggcccgga ggccaccctt gaggtccgtg ggtcgcgctg cttgcggctg tccgccttcc 180
gagaagagct gcgggcgctc ttggctcctg ctggccccgc gttcttgggt cagctgatgg 240
tgttctgat cagcttcata agctccgtgt tctgtggcca cctgggcaag ctggagctgg 300
atgcagtcac gctggcaatc gcggttatca atgtcactgg tgtctcagt ggattcggct 360
tatcttctgc ctgtgacacc ctcatctccc agacgtacgg gagccagaac ctgaagcacg 420
```

tgggcgtgat cctgcagcgg agtgcgctcg tcctgctcct ctgctgcttc ccctgctggg 480
 cgctctttct caacacccag cacatcctgc tgctcttcag gcaggacca gatgtgtcca 540
 ggcttaccca gacctatgtc acgatcttca ttccagctct tcctgcaacc tttctttata 600
 tgttacaagt taaatatttg ctcaaccagg gaattgtact gccccagatc gtaactggag 660
 ttgcagccaa cttgtcaatg ccctcgcaac tatctgttct catcaactgc atnttggggt 720
 gataggctct gactggcaaa cttgatttcc antacaccct ggctnta 767

<210> 3760

<211> 872

<212> DNA

<213> Homo sapiens

<400> 3760

aacctcagtc aggaccgcct gcaccgcagt ccggggatcg ggtcgagggg agaagaaaaa 60
 ggggtgctcg ggagcagccc ccggtacct cccctggagg cacagagggc gggggccttg 120
 gcgaatggct ttcttgctgg ccacttgctg aggtttggat tcaggatttg ttcctagtgt 180
 ccaagatttt gataagaaac ttacagaagc tgatgcttac ctacaaatct tgattgaaca 240
 attaaagctt ttgatgaca agcttcaaaa ctgcaaagaa gatgaacaga gaaagaaaat 300
 tgaaactctc aaagagacaa caaatagcat ggtagaatca attaaacact gcatttgttt 360
 gctgcagatt gccaaaagta ctattaatcc cgtagatgca atatatcaac ctagtccttt 420
 ggaacctgtg atcagcaciaa tgccttccca gactgtgtta cctccagaac ctgttcagtt 480
 gtgtaagtca gagcagcgtc catcttccct accagttgga cctgtgttgg ctaccttggg 540
 acatcatcag actcctacac caaatagtag aggcagtggc cattcaccac cgagtagcag 600
 tctcacttct ccaagccacg tgaacttgct tccaaataga gtcccagagt tctcttactc 660
 cagcagtga gatgaatttt atgatgctga tgaattccat caaaagtggc tcatncccaa 720
 agcgcttaat agattcttct ggatctgcct caatccttga cacacagcag cttcgggaaa 780
 tagtctaaaa cgcccaaaat cccccnggaa tcaattnaat tcttnccttg gccaatggga 840
 accaagtgga tgcctgaccc tggttggaat tc 872

<210> 3761

<211> 826

<212> DNA

<213> Homo sapiens

<400> 3761

```
tactaaagaa tgagaaagat gaggtgcaaa aattacaaaa tatcattgca agtcgagcta 60
ctcagtataa tcatgatatg aagagaaaaag agcgtgaata taataaactg aaggaacgtc 120
tacatcaact tgttatgaac aagaaagata agaaaatagc tatggacatt ttgaattatg 180
tcgggagagc tgatggaaaa agaggctcct ggaggactgg taaaactgaa gccaggaatg 240
aagatgaaat gtataaaatt ctcttgaatg attatgaata tcgtcagaaa caaatcctaa 300
tgaaaaatgc agaacttaag aaggttcttc aacaaatgaa aaaggaaatg atttctcttc 360
tttctcccca aaagaagaaa cctagagaaa gagtagatga tagtacagga actgttattt 420
ccgatgttga agaagatgcc ggggaactaa gcagagagag tatgtgggac ctttctgtg 480
aaactgtgag agagcagctt acaaacagca tcagaaaaca gtggagaatt ttgaaaagtc 540
atgtagaaaa gcttgataac caagtttcaa aggtacacct ggaaggtttt aatgatgaag 600
atgtaatctc acgacaagac catgaacaag aaactgaaaa actcgagtta gaaattcagc 660
agtgtaaaga aatgattaaa actcagcaac agcttttaca gcagcagctc gctactgcat 720
atgatgatga tccacttcct attacgagac tggatatttg ttggaagaaa aggaccgtnt 780
caaagaaaaa tgggcccttt ttaaagaacc cnaaaaagaa attttt 826
```

<210> 3762

<211> 818

<212> DNA

<213> Homo sapiens

<400> 3762

```
gcgcgagggga ggcgagccgg agcccagaca ctagcagcag ccggagtcgg cggaagcac 60
ccgggcgcag ccggagccgg tgccgcagct gcgatggccg tggccgtggg gagaccgtct 120
```

aatgaagagc ttcgaaactt gtctttgtct ggccatgtgg gatttgacag cctccctgac 180
 cagctgggtca acaagtctac ttctcaagga ttctgtttca acatcctttg tgttggtgag 240
 acaggcattg gcaaattccac gttaatggac actttgttca acaccaaatt tgaaagtgac 300
 ccagctactc acaatgaacc aggtgttcgg ttaaaagcca gaagttatga gcttcaggaa 360
 agcaatgtac ggctgaagtt aaccattggt gacaccgtgg gatttggaga ccagataaat 420
 aaagatgaca gctataagcc gatagtagaa tatattgatg ccagttcga ggcctacctg 480
 caagaggaat tgaagattaa acgtttctctc ttcaactacc atgacacgag gatccatgcc 540
 tgcctctact ttattgcccc tactggacat tcactaaagt ccctggatct ggtcaccatg 600
 aaaaagctgg acagtaaggt gaacatcatt ccaataattg caaaagctga caccattgcc 660
 aagaatgaac tgcacaaatt caagagtaaa gatcatgagt gaactgggtca gcaatggggt 720
 ccagatatat caagtttncc actgatgaag aaaccggtgg cagaagatta acgcaacaat 780
 tgatgggtcca tcttnccatt ttgcaatggg tggcanca 818

<210> 3763

<211> 839

<212> DNA

<213> Homo sapiens

<400> 3763

tggagagaag ccacatgagt gtaaggaatg tggaaaggcc tttcgtcagt tttccacct 60
 tgtgggtcat aaaagaattc atactggaga aaaaccctat gaatgcaagg aatgcgggaa 120
 gggctttaca tgtaggtatc aacttaccat gcatcagaga atttattcag gggagaaaca 180
 ctatgaatgt aaagaaaatg gggaggcttt tagtagtggc catcaactta ctgcacctca 240
 tacatttgaa agtggtgaga aaccttataa gtgtgaggaa tgtgggaaag cctttagtgt 300
 gcatggacga cttactcgac atcagggtat tcatagtggg aagaaaccct atgaatgtaa 360
 caaatgtggg aagtccttta ggctcaattc atcccttaaa atacatcaa atattcatac 420
 cgggtgagaaa ccctacaaat gtaaggaatg tgggaaggcc ttcagtcagc gtgcacacct 480
 tgcccatcat aacagaattc atactgggta caaacctttt gaatgtaaag aatgtgggaa 540
 gtcctttcgt tgtgcctcat atcttgnat acatgagaga attcatacag gagagaaacc 600

ctatgtatgt caagagtgtg ggaagggttt tagttatagc cataaactca ctatcatcgc 660
 agagttcata ctggtgagaa accittatgaa tgtaaggaat gtgggaaggc ctttaatgna 720
 tctggacact tactcagcat ctgagtattc acagnggtaa gaaacccttt tgaatgccac 780
 aaatgccggg aagtctttaa ggtcatttct ggccttaagg cccatcnnaa tattcatag 839

<210> 3764

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3764

aaggcgcgag cctgcgtttt ccggccagag gacatgatgc agggggaggc acaccctagt 60
 gcttccctta ttgacagAAC catcaagatg agaaaagaaa cagaggctag gaaagtggtc 120
 ttagcctggg gactcctaaa tgtatctatg gctggaatga tatatactga aatgactgga 180
 aaattgatta gttcatacta caatgtgaca tactggcccc tctggtatat tgagcttgcc 240
 cttgcatctc tcttcagcct taatgcctta tttgattttt ggagatattt caaatatact 300
 gtggcaccaa caagtctggt tgttagtcct ggacagcaaa cacttttagg gttgaaaaca 360
 gctgttgtac agactacgcc tccacatgat ctggcagcaa cccaaatccc tcccgtcca 420
 ccttccccct caattcaggg tcagagtgtg ttgagttata gcccttctcg ttcgcccagt 480
 accagtccca agttcaccac cagctgtatg actggttaca gccctcagct gcaagggtctg 540
 tcctcaggtg gcagtggttc ttatagccct ggagtgcct actcgcccgt cagtggttat 600
 aataagttag cgagctttac cctctcttc ttctnctac cctaccactg ttggaccant 660
 ggagagcagt ggattgagat ctgctaccg gtcttcacct accgtctaca actnacctac 720
 tg 722

<210> 3765

<211> 746

<212> DNA

<213> Homo sapiens

<400> 3765

```

ataaggctac ggatgggcgg gacggagcag cccaccgcaa agtggcggtt tacttgaggc 60
ggttacctta gtactccgag tagactgagt ctgtggcgag ctgcgggccg attcctggcc 120
agtgccatct cagccggagc aggccctcggg gcctcagaag caggctttta tctggcccga 180
ggctcccagc cgttcagcgc gtcttcccat aacctatacc gattattggg actctcggct 240
gcagacacag gagtcacaga tgctgggaag tatggcccga aagaaacctc gaaatacctc 300
aaggttgccc ctggctttta accccctgaa gagcaaggac gtgttggcag tgctggctga 360
gaggaacgag gctatagtag cagttggggc atgggtggaa cctgcctcac caggtagttc 420
ggaaatccca gcatatacat cagcatattt aattgaagaa gaactaaagg aacagctaag 480
aaaaaaacaa gaagctttga aacattttca gaaacaagtt aaataccgag taaatcaaca 540
aattaggttg agaaaaaagc aacagcttca gaagtcttat gaaagagcac aaaaagaagc 600
tccatagcca tgcagtcttc agcaacacac ttaactttca aaaggacaag tggttttnca 660
aacaatttga atggtgctat tggaaagttc tanggtacct tctttccttg atgcctgggg 720
gatggaatag angatgaaga agaatc 746

```

<210> 3766

<211> 840

<212> DNA

<213> Homo sapiens

<400> 3766

```

attgaggaac atggcggttc tgggtgcgagt ccttaggaac cagactagca tttctcagtg 60
ggttccagta tgcagccgat tgatacctgt gtctcctacc caaggacagg gggacagggc 120
tctgtctcgc acttcccagt ggccccagat gagccagtcc caagcatgtg gtggatcaga 180
acagattcct ggaatagaca tacagctgaa taggaagtat cacaccacac gtaagctttc 240
tactaccaa gattccccac agcctgttga ggagaagggtt ggtgctttca caaagataat 300
agaagccatg ggattcacgg gacctttgaa atacagtaaa tggaagatta agattgcggc 360
cctgcgcatg tatactagct gtgtggagaa aactgacttc gaggaattcc ttctaagggtg 420

```

tcagatgcct gatacattca attcatggtt tcttataacc ctactccacg tctggatgtg 480
 tctagtccga atgaagcagg aaggccggag tgggaagtac atgtgtcgta tcatagttca 540
 ttttatgtgg gaggatgttc agcagcgagg cagagtcatt ggggttaatc cctatatacct 600
 gaagaagaac atgacacctc tgacaaatca tttctatgca gcgatcttgg gatatgatga 660
 ggggatccct tcagatgata atgggctgcc gctgccctnt ggagaacctt cttcaaccgg 720
 aaatgtgaag accctcgaca tcttgaattg ctggtagagt atgtgaggaa acagatncag 780
 tacctggact ccatgaacng gggangatct ggttctgaca ggggaagtga actgcgccct 840

<210> 3767

<211> 811

<212> DNA

<213> Homo sapiens

<400> 3767

acggcgcgcg cgcacccctt ccgcgcagcc ccctgacctg cagcctccgg acctcgctgc 60
 agcgcgaggc cggcccgccc gcccgaaatga gtcagctgag gctgctgccg tcccgtcttg 120
 gggtagagga tgcgaggctc ctggctgcac atgacgtccc ggtgtttggc tggcgagca 180
 ggtcctccgg gccaccggcc accttcccaa gcagcaaagg tggaggcggc tccagttaca 240
 tggaggagat gtacttcgcc tggttgaaa acccccagag tgtccacaag tcctgggaca 300
 gcttcttcag ggaagccagc gaggaagcct tttctggctc tgctcagcca cggccccctt 360
 ctgttgtcca tgaggcgagg tctgcagctt caagtcggac caagaccagc aaattgggtg 420
 aggaccacct ggctgtacag tccctgatcc gggcctacca gatccggggg caccatgttg 480
 cccagctgga cccctgggc attctggatg cagacctgga ctcttttgtg cctcagact 540
 tgatcacaac cattgataaa ctggccttct atgaccttca ggaggctgac cttgataagg 600
 agttcagctg ccgacaacca cttcattgg gggctctgaa aacaccctt ctctcgggga 660
 gatcattcgg cgcctggaga acacctactg gcagcacatt ggcctggagt tcatgttcat 720
 caacgatgtg gagcaatgcc agtggatccg gcagaagttt gagaccctgg tgtgatgcan 780
 ttctcaccan gagaaacgga cctgtgncc g 811

<210> 3768

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3768

```
gcgccagcag gaagtgggag aagaggcgac ccaaggcggg ctggcgggct ggcggcagtc   60
gctacttgcc tagtagcctc agccgctgtg ggctcctggg gagatggagg ggccggggct  120
gggctcgcag tgcaggaatc acagccatgg cccccaccct ccaggatttg gtcgatatgg  180
catctgtgca catgaaaaca aagaacttgc caatgcaaga gaagctcttc ctcttataga  240
ggactctagt aactgtgaca ttgtcaaagc tactcaatac ggaatttttg aacgatgtaa  300
agagttggta gaagcaggat atgatgtcag gcaaccagat aaagaaaatg tgtcgcttct  360
tcattgggct gctattaaca acagactgga tcttgtaagg ttttatattt caaaagggtgc  420
tgttgtagat cagttgggtg gagatttaaa ttcaactcct cttcactggg ccatccgaca  480
aggacattta cctatgggtc tattattact ccagcatggt gcagacccca ctcttattga  540
tggagaggga ttcagcagca tccacctggc agtattgttt caacacatgc ctattatagc  600
atatctcatc tcaaagggac agagtgtgaa tatgacagat gtaaattggc agacacctct  660
catgttatca gctcaciaag taattgggcc agaccaactg gatttctttt aaaggttaat  720
ccttctctca atgtgggtga taaaatcacc aaaacactcc acttcactgg gcagttgcag  780
caggaaatgt taatgcattg ataagctttt ggnaactgnn tctaccctgg atatncagaa  840
tggtaaaggg agaaaca                                     857
```

<210> 3769

<211> 873

<212> DNA

<213> Homo sapiens

<400> 3769

```
aagtgcacgg aggagttccg ggggccaggc ggccgccgcg agtctggtat cctgagcttc   60
```


gtgagttgag cgctgctgct ccgcggtgga gtcaccgcac cgctcccggg atcatggtgt 120
 tctacttcac cagcagcagc gtttaattcat ctgcctacac tatttacatg ggaaaagata 180
 aatatgaaaa tgaagatctg atcaagcatg gctggcctga agatatctgg gagagaatat 240
 agaagacatc ccaaaggaag tgctgatgga ctgtgccac cttgtgaagg ccaatagcat 300
 tcaaggctgc aagatgaaca acgttaatgt ggtatatacg ccgtggtcta acctgaagaa 360
 aacagctgac atggatgtgg ggcagatagg ctttcacagg cagaaggatg taaaaattgt 420
 gacagtggag aagaaagtaa atgagatcct gaaccgatta gaaaagacca aagtcgagcg 480
 gttcccagac ctagcagcag agaaagaatg cagagatcgt gaagagagga atgagaaaaa 540
 agcccaaatt caggaaatga aaaagagaga aaaagaagaa atgaagaaga agagggaaat 600
 ggatgaactt aggagctatt catcactaat gaaagttgaa aatatgtctt caaatcagga 660
 tggcaatgat tcagatgaat tcatgtaaaa ggagaaaagg agaaaaggac ctttgaaaga 720
 tgtgaatgta gagacaattg cagacctttt gggttcatct gngttctgaa gtataaaatn 780
 caccaaaatt ctacctcat cctaccaga aattattgat tttcaagttt taaaaaatt 840
 gnaccttttt tgcttgccgg aaaaggatcn gat 873

<210> 3770

<211> 790

<212> DNA

<213> Homo sapiens

<400> 3770

cttcgcgcac ctcatggaat cccttctgca gcacctggat cgcctttccg agcttctggc 60
 ggtctcaagc actacctag tcagcacctg ggaccccgcc accgtgcgcc gggccttgca 120
 gtgggcgcgc tacctgcgcc acatccatcg gcgctttggt cgcatggcc ccattcgcac 180
 ggctctggag cggcggctgc acaaccagtg gaggcaagag ggcggctttg ggcgggggtcc 240
 agttccggga ttagcgaact tccaggccct cggtcactgt gacgtcctgc tctctctgcg 300
 cctgctggag aaccgggccc tcggggatgc agctcgttac cacctggtgc agcaactctt 360
 tcccggcccc ggcgctccggg acgccgatga ggagacactc caagagagcc tggcccgcc 420
 tgcccggccg cggtctgcgg tgcacatgct gcgcttcaat ggctatagag agaaccctaa 480

tctccaggag gactctctga tgaagaccca ggcggagctg ctgctggagc gtctgcagga 540
 ggtggggaag gccgaagcgg agcgtcccgc caggtttctc agcagcctgt gggagcgctt 600
 gcctcagaac aacttcctga aggtgatagc ggtggcgctg ttgcaacccg nctttgtctc 660
 gtcggcccca agaagagttg gaacccggca ttcacaaatc acctggaaaa ggggagccaa 720
 agtgctaagt ccacttggct ttttggggaa ttcggnaagt ctttgctggc cttttgtcgn 780
 gcccttccan 790

<210> 3771

<211> 753

<212> DNA

<213> Homo sapiens

<400> 3771

gaagaagaat ttacagggtt taaccaagaa gatctggaag aagaaaaagg tgaaacacag 60
 gtaaaagaag cagaagattc agattctgat gataacataa agagaggaaa acatatggac 120
 tttctgtcag attttgagat gatgttgcag cgaaaaaaga gcatgagtgg caagcgcaga 180
 cggaaccgcg atggtggcac ctttattagt gatgcagacg acgtcgtgag tgccatgac 240
 gtcaagatga atgaagctgc tgaggaagac agacagttga acaatcaaaa aaagccggca 300
 ctgaaaaaat taactttact gcctgctgta gttatgcacc ttaagaagca ggaccttaaa 360
 gaaacattca ttgacagtgg tgtgatgtct gccatcaaag aatggctctc acctctacca 420
 gataggagtt tgcctgcact caagatccgg gaggagctgc tgaagatcct gcaagagctg 480
 cctagtgtga gccaggagac cctgaagcat agtgggattg gacgagcagt gatgtatctc 540
 tataaacacc ccaaggagtc aaggtctaac aaggacatgg cagggaatt aatcaatgag 600
 tgggtctaggc ctatatattg tcttacctca aactacaaag gaatgacaag agaagaaagg 660
 gagcanagag atctanaaca gatgcctnaa cgacgaagaa tgaacagcac tgggtggtcaa 720
 gacacccaga agagacctgg gaaaaagtgc ttg 753

<210> 3772

<211> 821

<212> DNA

<213> Homo sapiens

<400> 3772

```

ctgcatcagc acagaattta ctccacggaa gcacggaggt gaaaaggag tgccctttag 60
gatccaggtt gacaccttta agcagaatga aaatggagaa tacacagatc atctacactc 120
agctagctgc caaatcaaag tttttaagcc taaaggtgca gacaggaaac aaaaaactga 180
ccgagagaag atggagaaga gaacagctca tgaaaaagaa aagtatcagc cgtcctatga 240
taccacaatc ctcacagagt gttctccgtg gcccgatgcc tccacagcct atgtgaataa 300
cagcccttcc ccagcgccca ctttcacctc cccacagcag agcacttgca gtgtcccaga 360
cagcaattct tcttcccaa atcatcaggg agatggagct tcacagacct ctggtgaaca 420
aattcagcct tcagctacga tccaggaaac acagcaatgg ctgctcaaaa acagattctc 480
ttcctacaca agactgttct ctaatctttc aggtgccgac ttattaaaac tgacaaagga 540
ggatttagct caaatttgtg gtgcagccga tggaattcgg ctctataatt cactgaagtc 600
aaggtcggtt agaccccggt taaccatcta tgtctgccgg gagcagccaa gcagcacagt 660
gctgcaaggg cagcancaag ctgcaagcag tgcaagcgag aatggcagtg gggcaccta 720
tgtttatcat gcaatctact tgggaagaaa tgattggctc agaagttggt tcgaaaactt 780
tgcgctggng gttaatatnc cttttccacc naatttaac a 821

```

<210> 3773

<211> 846

<212> DNA

<213> Homo sapiens

<400> 3773

```

gctctacagc ggaggtggct gtggcggtgg cgctggtggc tgcggcgggc gcggcggcag 60
cggcgctcga gcggttcctg tcagggtcag ccggcgggcc ccctgggtgg tccacctgca 120
aatcgcgag cggcgcccc gggatcgatg gcgatgaact ataacgcgaa ggatgaagtg 180
gacggtgggc ccccggtgtc tccggggggc accgcgaaga ctcggagacc ggataacacg 240

```

gccttcaaac agcaacggct gccagcttgg cagcccatcc ttacggctgg cacggtgcta 300
 cctatTTTTt tcatcatcgg tctcatcttc attcccatcg gcattggcat ttttgtcacc 360
 tccaacaaca tccgcgagat cgagattgat tataccggaa cagagccttc cagtccttgt 420
 aataaatggt tatctccgga tgtgacacct tgcttttgta ccattaactt cacactggaa 480
 aagtcatttg agggcaacgt gtttatgtat tatggactgt ctaatttcta tcaaaacat 540
 cgtcgttacg tgaaatctcg agatgatagt caactaaatg gagattctag tgctttgctt 600
 aatcccagta aggaatgtga accttatcga agaaatgaag acaaaccaat tgctccttgt 660
 ggagctattg ccaacagcat gtttaatgat acattagaat tgnttctcat tggcaatgat 720
 tcttataccta tacctatcgc ttgaaaaag aangtattgc ttggtggaca gataaaatgt 780
 gaaattcgaa atcccctgga ggaacaacct ggaaaacgat taaaggcca caaacctgtg 840
 actgnt 846

<210> 3774

<211> 860

<212> DNA

<213> Homo sapiens

<400> 3774

ctgggccgag agcgggtggc tgagccggga cctcgcgtga ttctcggaac ccgaggagaa 60
 gcggcgccg gggctatggc tgtgactctg gacaaagacg cttattatcg gcgagtgaag 120
 agactgtaca gcaattggcg gaaaggagaa gatgagtatg ccaacgttga tgccattgtt 180
 gtatcagtgg gtgttgatga agaaattgtt tatgccaaat caactgcctt acagacatgg 240
 ctcttttggt atgaactaac tgatactatc atggctcttt gtgatgacaa aatcatcttt 300
 atggccagca agaaaaagt ggagttcttg aaacagattg ccaacactaa gggcaatgag 360
 aatgctaata gagcccctgc catcacactg ctaatacgag aaaagaatga aagtaataag 420
 agtagctttg acaaaatgat tgaagccatt aaagaaagca agaattggca gaaggttgga 480
 gtgttcagca aagacaaatt ccctggagag ttcatgaaga gctggaatga ctgcctcaac 540
 aaagaaggct ttgacaaaat agatatcagt gcagttgtgg catataccat cgctgtaaag 600
 gaggatgggg agtcaacct aatgaagaaa gcagccagca tcacttctga agtcttcaac 660

aaattcttca aggaaagagt catggaaata gttgatgcag atgagaaagt tcgacacagc 720
 aaactggctg agtctgtgga aaaggccatt gaagagaaaa aatccttgct tggggcagac 780
 ccttctactg nggaaatgtg gtacccttct atcattcana gtggtggcac tattaatctc 840
 aagttcagtg nggtgaagtg 860

<210> 3775

<211> 871

<212> DNA

<213> Homo sapiens

<400> 3775

ngngcccgcg cagcgttgag ttgcacagcg gtattctcac caggccctgc aatcgggtggg 60
 ccacagtgcc ggccacagag atggttgaag gaccaggctg tactctgaat ggagagaaga 120
 ttgcgcgcgc ggtgctcccg ggccaggcgg tgaccggcgt gcggggaagc gctctgcgga 180
 gtccgcaggg ccgcgccttg cggctcgcag cctccacggt tgtggtctcc ccgcaggctg 240
 ctgcactgaa taatgattcc agccagaatg tcttgagcct gtttaatgga tatgtttaca 300
 gtggcgtgga aactttgggg aaggagctct ttatgtactt tggaccaaaa gctttacgga 360
 ttcatttcgg aatgaaaggc ttcacatga ttaatccact tgagtataaa tataaaaatg 420
 gagcttctcc tgttttgaa gtgcagctca ccaaagattt gatttgtttc tttgactcat 480
 cagtagaact cagaaactca atggaaagcc aacagagaat aagaatgatg aaagaattag 540
 atgtatgttc acctgaattt agtttcttga gagcagaaag tgaagttaaa aaacagaaag 600
 gccggatgct aggtgatgtg ctaatggatc anaacgtatt gcctggagta gggaacatca 660
 tcaaaaatga agctctcttt gacagtggtc tccaccagc tgttaaagtt tgncaattaa 720
 cagatgaaca natccatcac ctcatgaaaa tgatacgtga tttcagcatt ctctttttac 780
 aggtgcccgt aaaacaagga ctttgctctc ttttaaacac ttttaaggttt acaagccgtt 840
 cctaaaattg gggggccagt ggccacttgc n 871

<210> 3776

<211> 834

<212> DNA

<213> Homo sapiens

<400> 3776

```

agaaagt tac tgggagataa cttcgaagga ttttgcaaca aattcgagct gtccgactct 60
gagaatgaga catgaaaaat gctgtaattg gaaacaacaa gcagaaagcc aatctcattg 120
ttttaggagc tgttccaaga ttgttgact tgcttcagca agaaacctca agcacagggc 180
tgaaaactga atgtgcagtg gtgttgggaa gtcttgctat gggactgaa aacaatgtca 240
agtctctact ggactgccat attatccctg ccttattgca aggactactg tccccagacc 300
tgaagtttat tgaagcttgc ctccgatgcc tgcgtaccat cttcaccagt cctgtcactc 360
cagaggagct actgtataca gatgccacag tgataccaca cctcatggca ctgcttagca 420
gggtcccgcta taccaggag tacatctgtc agatcttctc acactgctgt aaagggccag 480
atcatcaaac aattttat tt aaccacgggtg cagttcagaa tattgtcac ctactaacct 540
cactgtccta caaagttcga atgcaagcac tgaaatgttt ctcagtttta gcttttgaaa 600
acccccaggt atcgatgacc ctggtaa atg ttttggttga tggagaattg ttaccacaga 660
tttttgtgaa gatgttacag agggataagc ctattgagat gcagctcaca tcagcaaaat 720
gtttaactta catgtgtaga gctggagcaa ttcggacaga tgataactgn attggattaa 780
aagacattac cttggttggn tcgaatgtgc ataaggagag attactagag gana 834

```

<210> 3777

<211> 846

<212> DNA

<213> Homo sapiens

<400> 3777

```

tatccaagga catgagcagt ttacacatct cacccaattc agggaaatgtc actagtgcac 60
ctgggtctca gatggcaagc ggcatcagcc tggtctcctt caacagccga cccgacggca 120
tgcaccagcg ctctactca gtctccagtg ccgaccagtg gaggtaggct acggtcattg 180
caaactcggc catcagcagt gacacagggc tgggtgactc cgtatgctcc agccccagta 240

```

tctccagcac caccagcccc aagctcgacc cgccccctc ccctcacgcc aacagaaaga 300
 agcaccgaag gaagaaaagc actagcaact tcaaagccga cggcctgtcc ggcactgctg 360
 aagaacaaga agaaaatttt gagtttatca ttgtgtccct cactggccaa acatggcact 420
 ttgaagccac gacgtatgag gagcgggacg cctgggtcca agccatcgag agccagatcc 480
 tggccagcct gcagtcgtgc gagagcagca agaacaagtc ccggctgacg agccagagcg 540
 aggccatggc cctgcagtcg atccggaaca tgcgcgggaa ctcccactgt gtggactgcg 600
 agaccagaa tcccaactgg gccagtttga acttgggagc cctcatgtgc atcgaatgct 660
 cagggatcca ccggaatctt ggcacccacc ttccccgagt ccgatctctg gacctggatg 720
 actggccaat cgagctcatc aaggtgatgt catccatcgg gaacgagcta gccaacagcg 780
 ttttgggaag anagcagcca ggggcggacg aaacctngt agactncaca agggaagaga 840
 aggaac 846

<210> 3778

<211> 788

<212> DNA

<213> Homo sapiens

<400> 3778

acaggaagtg aagagcttcc gccgggagac cgcggtgca ggaacggagg cggaaggggc 60
 cctgcggcga cgacgtcgtc gacgggggtg gccgtgggag ctgagcacgg agaagactcc 120
 ctctctcgga agccggatcc cgagccgggc aggatggatc accaccagcc ggggactggg 180
 cgctaccagg tgcttcttaa tgaagaggat aactcagaat catcggctat agagcagcca 240
 cctacttcaa acccagcacc gcagattgtg caggctgcgt cttcagcacc agcacttgaa 300
 actgactctt cccctccacc atatagtagt attactgtgg aagtacctac aacttcagat 360
 acagaagttt acggtgagtt ttatcccgtg ccacctccct atagcgttgc tacctctctt 420
 cctacatacg atgaagctga gaaggctaaa gctgctgcaa tggcagctgc agcagcagaa 480
 acatctcaaa gaattcagga ggaagagtgt ccaccaagag atgacttcag tgatgcagac 540
 cagctcagag tggggaatga tggcattttc atgctggcat ttttcatggc atttattttc 600
 aactggcttg gattttgttt atccttctgt atcaccaata ccatagctgg aaggtatggt 660

gctatctgcg gatttggcct ttccttgatc aaatggatcc ttattgtcag gttttctgat 720
tattttactg gatatttcaa tgggacaagt attggctttg gnggatattc ttgnacttgg 780
nctgggttc 788

<210> 3779

<211> 813

<212> DNA

<213> Homo sapiens

<400> 3779

agaaccgctg tggcaccgct actccgtgcc gcgcccgtcg agcattgcgt tgctgcattg 60
cgccccaccg actccactat gttgaagaaa ttcgacaaga aggatgagga gtcaggtgga 120
ggctccaacc cattccagca ccttgagaag agtgcggtac tccaggaggc ccgtgtatatt 180
aatgaaactc ccatcaaccc tcggaaatgt gcccacatcc tcaccaagat tctttatctc 240
ataaaccagg gggagcacct ggggaccacg gaagcgaccg aggccttctt tgccatgacc 300
aagctctttc agtccaatga tcccacactc cgtcggatgt gctacttgac catcaaggag 360
atgtcttgca ttgcagagga tgtcatcatt gtcaccagca gcctaacaaa agacatgact 420
gggaaagaag acaactaccg gggcccggcc gtgcgagccc tctgccagat cactgatagc 480
accatgctgc aggctattga gcgctacatg aaacaagcca ttgtggacaa ggtgcccagt 540
gtctccagct ctgccctcgt gtcttccttg cacctgctga agtgcagctt tgacgtggtc 600
aagcgctggg tgaatgaagc tcangaggca gcatccagtg ataacatcat ggtccagtac 660
cacgcactan ggcttctgta ccatgtgcgt aagaatgacc gctaccgtca ataagatgat 720
cagcaaggtc acacggnatg ggcttaagtc ttcctttggc tactggatga tgatcccgg 780
gggcaacaag canctggaaa aagaggatgg cna 813

<210> 3780

<211> 852

<212> DNA

<213> Homo sapiens

<400> 3780

atggcttggg taccacaact tccggtgcgc ctttctttac agttcgtaag gttcataggc	60
gggtggctcct gggctccagg aaccactgca acttggggag ttggatatca cttctgatga	120
attcatcctg gatgaagtgg atgttcacat tcaggcaaat ctggaggatg agttagtaaa	180
ggaagctctt aaaacgggtg tagatctccg tcactattca aagcaagttg agctggagct	240
acagcagatt gaacagaaat ccattcggga ttatattcaa gagagtgaga atatagcate	300
tctacacaac cagatcacag cctgtgatgc tgtcctggag cgaatggagc agatgttggg	360
agcttttcag agtgacctca gctccatcag ctctgagatc cggacactgc aggaacagtc	420
aggagccatg aacattcgac ttcgaaatcg ccaggcagtt cgggggaaac ttggggagct	480
tgttgatggt ctggtggtgc cttctgctct gtgcacggca attctggagg ctccagtgc	540
agagcccagg ttcttggagc agctacagga gctggatgcc aaggcagccg cagtcagaga	600
gcaggaagct agaggcacag cagcctgcgc agatgtcaga gcgtgctcga tcggctccgg	660
gtcaaggcag tgaccaagat ccgagagttt atccttcaga agatttattc cttcaggaaa	720
cccatgacca actatcagat ccccanacg ggctgctga agtacagggt cttctatcag	780
tttctgctgg gcaatgaacc agccacagcn aaggagatca gggatgaata tgtggaaacn	840
cttaccagaa tt	852

<210> 3781

<211> 831

<212> DNA

<213> Homo sapiens

<400> 3781

cgattccagc caatgaagct gtttgctata tgcctgaatc aaagtatgct gttgtgaaat	60
gttctaagtc tggagacctc tacgtactgg cggcagataa agtagcatct gttgcttcta	120
ctttggaaac aacatttgag actatttcaa cactttcagg tgtagatttg gaaaatggta	180
cttgcagtca tccattaatt cctgataaag cctctcctct tttaacctgca aatcatgtga	240
ccatggcaaa aggaacggga ttgggtcaca cagccccagc tcatggtatg gaagactacg	300

gtgtagcgtc tcagcacaac ctgcccattg attgtctagt ggacgaagat ggagttttca 360
 cagatgttgc aggtcctgaa cttcaaaaaca aggctgtcct tgaagaggga actgatgtgg 420
 ttataaagat gcttcanact gcaaagaatt tgttgaaaga ggagaaattg gtgcatagct 480
 atccgtatga ctggaggacc aagaaacctg tggttattcg tgccagcaag cagtggttta 540
 taaacatcac ggatattaag actgcagcca aggaattgtt aaaaaagggtg aaattttattc 600
 ctggatcagc actgaatggc atggttgaaa tgatggacag gcggcatatt ggtgtatatc 660
 aaggcaaaga gtttggggtg ttccaattcc tngttttcat cataagacca aggatgaatc 720
 ttgatcaaca gccaaaccac tgagcatatt ggtaaactag tgnnaccacc cnggagtgat 780
 atctggtgga ctttttcct gaacaacttn ttccaaaaga agcttatctg a 831

<210> 3782

<211> 876

<212> DNA

<213> Homo sapiens

<400> 3782

aaatgtctga tgctcagggc agctacaaac tggatgaagc tcaggctgtc ttgagagaaa 60
 caaaagccat caaaaaggct attacctgtg gggaaaagga aaagcaagat ctcattaaga 120
 gccttgccat gttgaaggac ggcttccgca ctgacagggg gtctcactca gacctgtggt 180
 ccagcagcag ctctccggag agttcgagtt tcccgtacc gaaacagtac ctggatgtga 240
 gctcccagac agacatctcg ggaagcttcg gcatcaacag caacaatcag ttggcagaga 300
 aggtcagatt gcgccttcga tatgaagagg ctaagagaag gatcgccaac ctgaagatcc 360
 agctggccaa gcttgacagt gaggcctggc ctgggggtgt ggactcagag agggaccggc 420
 tgatccttat caacgagaag gaggagctgc tgaaggagat gcgcttcac agccccgca 480
 agtggacccc ctccctggctg gtgatgcctt cctcaactcc ttggagtttg aagacccgga 540
 gctgagtgcc actctttgtg aactgagcct tggtaacagc gcccaggaaa gataccggct 600
 ggaggaacca ggaacggagg gcaagcagct gggccaagct gtgaatacgg cccaggggtg 660
 tggcctgaaa gtggcctgtg tctaaccgc cgtatcggac gagtcagtgg ctggagacag 720
 tgggtgtgtac caagcttncg tgccagagac tgggttgctt taaaaactgg ctgcatttga 780

caagtgacca aatcggaag ccatggggtg ccaacccgaa ttcanaattg gccttgaant 840
attgatgaag aagaattaag ccattttgca atatta 876

<210> 3783

<211> 862

<212> DNA

<213> Homo sapiens

<400> 3783

gtgaggccgt cgtcgccgca cgggctggtt ggggctgtgt ctgtgggagg cgccgggggtg 60
atggcgggtg agactctgtc cccggactgg gagtttgacc gcgttgacga cggctcgcag 120
aaaattcatg ccgaagtcca acttaagaat tatgggaaat ttcttgagga gtatacctct 180
caactgagaa gaattgagga cgctctggat gactcaattg gagatgtttg ggatttcaat 240
cttgatccta tagcattaaa gcttttgcct tatgaacagt cctctctttt ggaactcata 300
aagactgaaa acaaggtctt aaacaaagtc atcactgttt atgctgcact ttgttgtgaa 360
atcaagaaat taaaatatga ggctgaaact aaattttaca atggtctctt gttttatgga 420
gaaggagcta cagatgccag catggtggaa ggtgattgcc aaattcaaatt ggggagattt 480
atttcattct tacaggaact gtcttgcttt gttacatgaa gtggtgatga acgtagtcca 540
ccagttggct gccctctata tcagtaacaa gattgcaccc aaaattatag agacaactgg 600
agttcatttt cagactatgt atgagcactt gggagaactg ctaacagttt tgctcacctt 660
ggatgaaatt attgataatc atatcacact gaaagaccac tggactatgt acaaaagggtt 720
actgaaatct gtccatcaca atccttcaaa atttggaat tcaggaagaa aaattaaag 780
ccatttgaaa aagttcttgc tgaanctaga anggcaatta ctggatggaa tgatattcca 840
ggcctgtata gaacaacat tt 862

<210> 3784

<211> 845

<212> DNA

<213> Homo sapiens

<400> 3784

aatatgtatc	gtctccctgc	cacccaggag	gtggtgacgc	agctgcagag	ccagatcttg	60
gagctgcagg	gggagctgaa	ggagtttaaa	acttgtaata	agcaacttca	ccaaaagtta	120
attctggctg	aggcagtgat	ggaggggagg	ccaacgcccg	acaaaacgtt	gctgaatgac	180
tctgagatth	gcccacctga	tgaccttgcc	agcttgccat	catgcaaaga	aatcctgaa	240
gatgttctga	gcccacttc	agtagctact	tacctgagtt	ccaagagtca	gccttctgct	300
aaagtcagtg	tgatggggac	tgatcagtca	gagagcatta	atacctcaaa	tgagacagaa	360
tacttaaaac	agaaaatcca	tgacttggaa	actgagctgg	aaggctacca	gaatttcata	420
tttcagcttc	aaaagcactc	ccagtgcagt	gaggccataa	ttacagtttt	gtgtgggaca	480
gaaggggccc	aggatggctt	gagcaagccc	aagaatggtt	ctgatgggga	agaaatgacc	540
ttttcaagtt	tgaccaagt	gcgatatgtg	aaacacgtga	aaatcctcgg	tccgctggcc	600
ccagagatga	ttgacagcag	ggtgctggag	aacctcaaac	agcagctgga	ggaacaggaa	660
tacaagctgc	agaaggagca	gaatttgaac	atgcaacttt	tcagtgagat	ccataatctg	720
cagaaataag	ttcagagatc	tctcaccttc	cagatacgat	tcattagttc	agtcccaagc	780
caggagactn	ttcctttaac	gggagcagat	taaaggatgg	ncatggcatc	tgggncatct	840
tccgt						845

<210> 3785

<211> 793

<212> DNA

<213> Homo sapiens

<400> 3785

caagttgtgg	aagcccttgg	gtcctctcta	gagaatccag	aaccccgaac	tcgggcacga	60
ggaatccagc	ttttgtcaca	ggtgctactc	cactgtcaca	ccttgctcct	ggagaaggaa	120
gtggtacacc	tgatactgtt	ctatgagaac	cggctgaagg	accatcatct	tgtgatccca	180
tctgtcctgc	agggtttgaa	ggcacttagc	ctgtgtgtgg	ccctgcccc	agggtggct	240
gtttctgtgc	ttaaagccat	cttccaggaa	gtgcatgtac	agtccctgcc	acaggtggac	300

cgacacacag tctacaatat catcaccaat tttatgcgaa cccgggaaga agagctaaag 360
 agcctaggag ctgacttcac ctttggcttc atccaggatga tggatgggga aaaggatccc 420
 cgtaatcttc tggatggcctt ccgcacgctc catgacctca tctccaggga ctatagcctg 480
 ggaccctttg tggaggagtt gtttgaagtg acatcctgtt atttccctat cgattttacc 540
 cctccaccta atgatcccca tggatatccag agagaagacc tcatacctgag tcttcgcgct 600
 gtgctggctt ctacaccacg atttgcctgag tttctgctgc cctgtttgat tgagaaagtg 660
 gattctgagg ttctgagtgc caagttggat tctctacaga ctctgaatgc ttgctgtgct 720
 gngtatggac agaaggaact gaaggacttc ctcccagctt tgggcttcta tncgcanaga 780
 gagcagccac cgg 793

<210> 3786

<211> 664

<212> DNA

<213> Homo sapiens

<400> 3786

gtaatgctgg gaaaccccgg ctgacgcgcc cctccccgc ccgcagtgcg gctcggcgga 60
 gtacatggcc ccggaggtag tggaggcctt cagcgaggag gctagcatct acgacaagcg 120
 ctgcgacctg tggagcctgg gcgtcatctt gtatatacta ctcagcggct acccgccctt 180
 cgtgggcccgc tgtggcagcg actgcngctg ggaccgcggc gaggcctgcc ctgcctgcca 240
 gaacatgctg tttgagagca tccaggaggg caagtacgag ttccccgaca aggactgggc 300
 ccacatctnc tgcgctgcca aagacctcat ctccaagctg ctggtccgtg acgccaagca 360
 naggctgant gccgccaag tcctgcagca cccctgggtt caggggtgcg ccccgagaa 420
 caccttgccc actcccatgg tcctgcatag gtgggacagt cacttccctc tccctcccca 480
 cccctgtcgc atncacgtgc gacctggagg actggtcaaa accgttactg ngaatgagtg 540
 aagatcctgg aggaccctgg gccccaggcc agctcccatc gctggggggac ggtgaacggc 600
 catgtgttaa tgttacgatg ttnttaaaag acaacttgaa ggaacttggc cgntctgnaa 660
 gcat 664

<210> 3787

<211> 850

<212> DNA

<213> Homo sapiens

<400> 3787

```

ngctcacgtg acaaagctcc cggaggtggg agccctgggc caaaatggcg gcctacctgc   60
agtggcggcg cttcgttttc ttcgacaagg agctggtgaa ggagccgctg agcaatgatg  120
gggcccgtcc cggggccaca cctgcttctg gatccgctgc ttccaagtgc ctttgcctcc  180
ctcctggcat cactgtctgc gactcaggcc gagggagcct ggtctttgga gatatggaag  240
gccagatctg gttcttgcca cgttccctac agcttacagg cttccaagcc taaaactac  300
gggtgacaca cctgtaccaa ctgaagcagc acaatattct ggcatctgtt ggagaagatg  360
aagagggcat caacccttg gttaagatct ggaacctgga gaagagagat ggtggcaatc  420
cactctgcac tcgaatcttc cctgctattc caggaacaga gccaactgtt gtatcttggt  480
tgactgtcca tgaaaatctc aactttatgg ccattggttt cacagatggg agtgttacat  540
tgaacaaagg agacatcacc cgggaccggc atagcagacc cagattttgc acaagggcaa  600
ctatcctgta actggattgg cttttcgcca agcaggaaag accactcact tgtttgttgt  660
gacaacagag aacgtccagt cctatatagt ttctggaaaa gactaccctc gcgtggagtt  720
ggacacccat ggttgtggcc tgcgctgtta accctaagt acccttctca ngacctgcag  780
ttattgnggg ccggggatga tgggctactt gtccagcctg atgaactggg ccctgcttcg  840
cctttanggc                                     850

```

<210> 3788

<211> 667

<212> DNA

<213> Homo sapiens

<400> 3788

```

acacgtcttc cagctccaca tcctgagagg acgcttctgg agccgcgact gcccggggtt   60

```

gtgccggccg ncgctgccgc ccaggccgcc tcagctctcc tctgcgccgg accgctcact 120
 ccgcccggcc ccagccctag cgctggccgc gaccccggcg cctttgaaac ttctgctggt 180
 gtgagtcccc tcgggggttc cccaggaata tcgatacaac accaacagga gatcatgaat 240
 cagacagata aaaatcaaca agaaatccca tcatacctta atgatgaacc accagaaggt 300
 tcaatgaaag atcaccacaca gcancagcca ngcatgttgt cccgtgtgac tgggggtatc 360
 ttcagtgtta caaaggaggc tgttggtgcc accattggtg gtgtggcttg gattggtgga 420
 aagagtctgg aagtgaccaa aacagctgnt acaactgtgc cttncatggg aatagggtg 480
 gtgaaagggg gtgtctctgc tgtggctgga ggtgtacaag ctgntgggtc tgctgttgta 540
 aacaaagtgc ccttaacagg aaagaagaaa gacanatctg actgaaatat agagatacac 600
 ttgcgctcca cancaactgta atgccanttg gcattgaaat tgctaaatta tggactacca 660
 accaagt 667

<210> 3789

<211> 749

<212> DNA

<213> Homo sapiens

<400> 3789

tctactcttc tgattatttg aaatgctgag gaaaatgtcc ctcccatagt aaaacttgta 60
 aataaggaac tataatcatat tcagtagctg tgttctgttc catctttttt ttttttttg 120
 agatggagtt ttgcttggtg cccaggctgg agtgcagcgg cacgatcttg gttcactgca 180
 acctccgcct cccaggttca agcgattctc ttgcctcagc ctcccgagta gctggggact 240
 acaggtgtgc gacaccatgc ctggctaatt tttttgtatt ttttagtagag atgggggttc 300
 accatgttgg ccaggctggt ctcaaactcc tgacctcaaa ggatccaccc gccttggcct 360
 cccaaagtgc tgggatcaca ggcgtgagcc accatgcccg gcccatcttt ttttttttt 420
 ttttttttaa agatgttaat aaactttata cctttctgga nactttgttc taaaatgtac 480
 ataaatgctc atctagttaa catatttact tagaatgtgg gaggaggagt cacattatta 540
 tccctgaatc tcaagtnca cagaagtga ttcctgggat agtaggatag actaacatgt 600
 aaaaaggcca ggtgatgcat aggttctcat ttcaactgcc tcagccttcc tctccttctg 660

agctggcctt ctncatgttc agtcaactcc agggaatatt ggctccatct tctggataga 720
actagttgcn ggatccgtnc aagaattca 749

<210> 3790

<211> 759

<212> DNA

<213> Homo sapiens

<400> 3790

aggtggcgga gattgcaccg gaagacgctt cctgggtttg aggagttcag tgactgctat 60
tgaaccacca aaagtccatt atgaaactgt attgcctgtc agggcaccca accttaccat 120
gcaatgtgct caaattcaaa tcaaccacca ttatgttggga ctgcggactg gacatgactt 180
ctaccctcaa tttccttcct ttgccacttg ttcaaagtcc caggctgtcc aatcttcctg 240
gctgggtccct gaaggatgga aatgctttct tggacaagga gctaaaggag tgctcgggtc 300
atgtatttgt ggattctgtg ccggaattct gtttaccaga gacggagcta atagatctgt 360
ctacagtaga tgtgattctc atctctaact atcactgtat gatggcgctg ccatacatca 420
ccgagcacac cggcttcaca ggcacagtgt atgccacgga acccaccgtc cagatcggca 480
ggctttctcat ggaagagctg gtgaatttca ttgaaagagt gccaaaggct cagtctgcct 540
ccttgtggaa gaataaggac attcagaggc tgttaccttc tcctctcaag gatgcagtgg 600
aagtctcaac ctggagaaga tgctatacaa tgcaagaggt gaactctgcc cttagtaaaa 660
tccactgggtg ggatattctc agaaaattga gctttttggt gcngtccang tgactnctct 720
gagctctggc tatgcccttg ggagcttcaa ctggatcat 759

<210> 3791

<211> 778

<212> DNA

<213> Homo sapiens

<400> 3791

agaaaagatg gcgaaagtca acataactag agacctcatc cgtaggcaga tcaaggagcg 60
 ggggtgccctg agctttgagc ggcgctacca tgtcactgac cccittatcc ggcggctggg 120
 cctggaagca gagctgcagg gtcactcagg atgtgtcaac tgtctggagt ggaatgagaa 180
 aggagacttg ctggcctctg gttccgatga ccagcacacg attgtgtggg acccgctgca 240
 ccacaagaag ctgctctcca tgcacacggg acacaccgca aatatcttct ctgtcaagtt 300
 cctgcctcac gctggggacc gcatcttgat cacgggggca gccgactcta aggtgcatgt 360
 gcacgacctg acagtaaagg agaccatcca catgtttgga gaccacacaa accgggtgaa 420
 gcgcatcgcc acagcgcca tgtggcccaa cacattctgg agtgctgctg aggatgggct 480
 tatccgccag tatgaccttc gagagaacag caaacactcg gaggtgctga ttgacctgac 540
 agagtactgt ggccagctgg tggaggccaa gtgcctcact gtcaaccccc aggacaacaa 600
 ctgcctggca gttggggcca gcggggccctt cgtgaggctc tatgacatcc gcatgatcca 660
 taaccacaga aagagcatga acagagccct tcancgggtg tgcacacctt ctgtgaccgg 720
 canaaacccc ttncggacgg tgcagcccag tattacgtaa caggtcacct ggccaatg 778

<210> 3792

<211> 863

<212> DNA

<213> Homo sapiens

<400> 3792

gtgggcaagc cgcgagcgg gaagagccgg ccgaagcgtg gcggccacag actgtgggta 60
 ccgggtccga gggactcgcg cttttctctc cgtgccatgg cgccagcgaa agccacgaac 120
 gtggtgcggc tgctactagg ctccacagcg ctgtggcttt cgcagctcgg ctccgggacg 180
 gtcgccgcgt ccaagtcggt gactgcccac ttggccgcga agtggcccga gaccccgtg 240
 ctgctggagg caagtgaatt tatggcgga gaaagtaatg aaaaattttg gcagtttttg 300
 gaaactgtgc aagaattagc aatttataag caaacagaat cagattattc ttattacaac 360
 ttaatcctga agaaagctgg acagtttcta gacaatttac acatcaacct tttaaagttt 420
 gctttctcta taagggcata ctccccagct attcagatgt ttcagcagat tgcagctgat 480
 gagccaccac cagatggttg taatgcattt gtggttattc ataagaagca cacctgtaaa 540

attaatgaga ttaaaaagct gctgaagaaa gctgcttcaa ggactagacc ttatctatatt 600
 aaaggagatc acaaatttcc tacaacaaaa gagaacttac cagtggatgat tctctatgcc 660
 gaaatgggta ctagaacatt tagtgcattt cacaaagtat tgtctgaaaa agctcaaaat 720
 gaggaaattc tgnatgggtct tcgccattat attcagaacc aagctnacgg aaaatgtact 780
 tatctgggta tgggtgtggaa ctagcaattt aagagtcccg aatcaaagca ctggatgata 840
 cccaagntta aactggngac tta 863

<210> 3793

<211> 709

<212> DNA

<213> Homo sapiens

<400> 3793

gcgtttttccg gccgtgcgtt tgtggccgtc cggcctccct gacatgcagc cctctggacc 60
 ccgaggttgg accctactgt gacacaccta ccatgcggac actcttcaac ctccctctggc 120
 ttgccctggc ctgcagccct gttcacacta ccctgtcaaa gtcagatgcc aaaaaagccg 180
 cctcaaagac gctgctggag aagagtcagt tttcagataa gccggtgcaa gaccgggggtt 240
 tgggtgtgac ggacctcaaa gctgagagtg tggttcttga gcatcgcagc tactgctcgg 300
 caaaggccccg ggacagacac tttgctgggg atgtactggg ctatgtcact ccatggaaca 360
 gccatggcta cgatgtcacc aaggtctttg ggagcaagtt cacacagatc tcacccgtct 420
 ggctgcagct gaagagacgt ggccgtgaga tgtttgaggt cacgggcctc cacgacgtgg 480
 accaagggtg gatgcgagct gtcaggaagc atgccaaagg cctgcacata gtgcctcggc 540
 tcctgtttga ggactggact tacgatgatt tccggaacgt cttagacagt gaggatgaga 600
 tagaggagct gagcaagacc gtgggtccang tggcaaagaa ccagcatttc gatggcttcg 660
 tgggtggaagt ctggaaccag ctgctaagcc agaancgcgt gggcctnat 709

<210> 3794

<211> 856

<212> DNA

<213> Homo sapiens

<400> 3794

```

atncgtagcg gccgccattg ttccgcgccg atggcgagat ccttgttcct cagatagcgt 60
tcacgccccg tcgtgggtcaa cgggccagcc gagtctggag tggttgcgaa cccttctggc 120
tgcagatctg gaggtggagg cagtaccctg gactctatct tgctgcccct tcagggtttg 180
gaggagccgg agcatccctc gcgtcctgtc acttccagcg aggcacacaa aactgaccgt 240
agggatggcc accagggtcc ggacagcttc tatttgggtc ccacctctcc aagaacgaaa 300
cagttcatgg gataggatca gaaagctcca aggtcaggaa tccatcttgg gccaaaggac 360
tcctggtctg caacctctcc ctggaacacc caggcagaag cagaagagtc gcagaataga 420
gaaagtccta gagtggctgt ttatttccca agagcagcca aaaatcacca agtcctgggg 480
acctttgtca ttcattgatg tgtttgtgga ttttacctgg gaggagtggc agctgctaga 540
cccagcacag aagtgcctgt acaggagtgt gatgttggag aactatagca acctggtgtc 600
cctagggtac caacacacca aacctgatat catcttcaag ttggaacaag gagaagagct 660
gtgtttggcg caagcccaag ttncaaatca gacctgtcca attttgaang ctggaaagtc 720
caaagccaag gtgctggcag gtttgggtgtc tgggaaggc ctgctctggg cttncaagat 780
gacgccttgg tgctgcatcc tntggagacc agtcttggaa aattggatga tcttatggat 840
tggcntcagg gaaaat 856

```

<210> 3795

<211> 869

<212> DNA

<213> Homo sapiens

<400> 3795

```

gtcgtttaaa agaaacactt gctcagcttt caagagagac agacgtgtca ccatttccac 60
cccgtaagcg cccatcagct gagcattccc ttccatagg gtcactccta gatattcca 120
acacaccaga gtctagcatt aactatggag acaccccaaa gtcttgtact aagtcttcta 180
aaagctccac tccagttcct tcaaagcagt cagcaagggtg gcaagttgca aaagagcttt 240

```

atcaaactga aagtaattat gttaatatat tggcaacaat tattcagtta tttcaagtac 300
 cattggaaga ggaaggacaa cgtggtggac ctatccttgc accagaggag attaagacta 360
 tttttggtag catcccagat atctttgatg tacacactaa gataaaggat gatcttgaag 420
 accttatagt taattgggat gagagcaaaa gcattggtga catttttctg aaatattcaa 480
 aagatttggg aaaaacctac cctccctttg taaacttctt tgaaatgagc aaggaaacaa 540
 ttattaaatg tgaaaaacag aaaccaagat ttcattgctt tctcaagata aaccaagcaa 600
 aaccagaatg tggacggcag agccttgttg aacttcttat ccgaccagta cagaggttac 660
 ccagtgttgc attactttta aatgatctta agaagcatac agctgatgaa aatncagaca 720
 aaagcacttt agaaaaagct attggatcac tgaaaggaag taatggcccc ttattaatga 780
 nggttagaag aaaaaccgaa gctcaaaagc caaatttttg gatggtgggt tatgaagtan 840
 atggatgccc actaatcttt tatcttctc 869

<210> 3796

<211> 811

<212> DNA

<213> Homo sapiens

<400> 3796

gggctgtttg aatggctttg ggatggagca ggggagagag tggctccgtt tgcctccccg 60
 ctttgggtgat gctgtgcgag cggcttcggg ggccctggag acgtccgagt cactgagggt 120
 gggctgggac tcggggcccc cgctccatct ccccgccgat tggctccgcc cccgtgcgag 180
 tgtaacacag ccagcctcga agacttccct ctgagttgga atgataatga ccggtatccc 240
 agaagttata gacttagacc cccagctga gacttccag gagcaggaag accttttcat 300
 agtgaagggt gaagaagaag actgcacctg gatgcaggag tacaaccgc caacgtttga 360
 gactttttac cagcgttca ggcacttcca gtacatgag gcttcaggac cccgggaggc 420
 tctcagccaa ctccgggtgc tctgctgtga gtggctgagg cccgagctgc acacgaagga 480
 gcagatcctg gagctgctgg tgctggagca gttcctgacc atcctgcctg aagagttcca 540
 gccctgggtg agggaaacat accctgaaag tggagaagag gcggtggccg tgatagaaaa 600
 tatacagcga gaacttgagg aacgcagaca gcagattgtt gcctgccctg atgtgcttct 660

cggaagatgg caacacctgg acaatgcang agtcctgcag ccccatccc tgaccgtgga 720
 cacccaacct gacaacgcca caaaagcctn gncttctgga ggaaaatgcc ttctgtctcc 780
 aagttcttnc cttccctgaa ggacagccag a 811

<210> 3797

<211> 805

<212> DNA

<213> Homo sapiens

<400> 3797

acgcctggtc tctgggacgc ccctccggac ccgtttcgcc tcgcggagcc ggtaggtcca 60
 ggtgcagcgg ccgcagtgtc gcgtccgtgc gccgcgggtc ggggcgggtc caggtgtgcc 120
 gaagctcttg tcagtgccat gatccggcag gagcgtcca catcctacca ggagctgagt 180
 gaggagttag tccaggtggt tgagagctca gagctggcag acgagcagga caaggagacg 240
 gtcagagtcc aaggtccggg tatcttacca ggcttgaca gcgagtcgc ctccagcagc 300
 atccgcttca gcaaggcctg cctgaagaac gtcttctcgg tctactcat cttcatctac 360
 ctgctgctca tggctgtggc cgtcttcctg gtctaccgga ccatcacaga ctttcgtgag 420
 aaactcaagc accctgtcat gtctgtgtct tacaaggaag tggatcgcta tgatgcccc 480
 ggtattgcct tgtaccccg tccagcccag ttgctcagct gtaagcacca ttacgaggtc 540
 attcctctc tgacaagccc tgccagccgg gtgacatgaa ttgcaccacc cagaggatca 600
 actacacgga ccccttctcc aatcagactg tgaaatctgc cctgattgtc caggggcccc 660
 gggaagtga aaagcgggag ctgggcttnc ttcagttccg cctgaacaag agtagtgagg 720
 acttaacgcc atttgattac ctncctctct cttcttttca ggagttcctt gcaaaagccc 780
 aaacangggg aaggcttcat gcang 805

<210> 3798

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3798

ataatccttt tgcaaacatc tcaacgctgg ctctccaggt ggagcaccat ggaaggcgac	60
tgtctgagct gcatgaagta tctgatgttt gtattcaatt tcttcatatt tctgggcggg	120
gcctgcctgc tggccatcgg catctgggtc atgggtggacc ccaccggctt ccgggagatc	180
gtggctgcc aatcctctgct cctcacgggc gcctacatcc tcctggccat ggggggcctg	240
ctctttctgc tcggcttcct gggctgctgc ggggccgtcc gtgagaacaa gtgtctgctg	300
ctatttttct tcctgttcat cctgatcatc ttcttgccag agctctcagc agccatcctg	360
gccttcatct tcagggaata tctcaccga gaattcttca ccaaggagct caccaagcac	420
taccaggga ataacgacac agacgtctt tctgccacct ggaactcggc catgatcaca	480
tttggttgct gcggggtcaa cgggcctgaa gactttaagt ttgcatctgt gtttcgactc	540
ctgaccctgg atagtgaaga ggtgccggag gcctgctgcc ggagggaacc ccaaagtcgg	600
gacgggggtcc tgctgagccg ggaggagtgc ctncctggaa ggagcctatt cctaaacaag	660
cagggtggt acacngngat cctcaacacc ttcgagacct acgtctactt tggcccgaac	720
ccttggcatt ggggtactgg ncattgaacc ttttcgcat gaacttttgc catgngcctt	780
tttccgggca ttccant	797

<210> 3799

<211> 692

<212> DNA

<213> Homo sapiens

<400> 3799

tcaccggtgc cgtgctcttc ctgaaccacg cccacgcgcc gggcacggcg cccccacctg	60
tcgtcagcac tggggctgcc agcgccaaca gcgccctggt cactgtggaa agggcggaca	120
gctcgcacct cagcatcctc attgaccgc gctgccccga cctcaccgac agcttcgcac	180
gcctggagag cggccaggcc tcggtgctgc aggcgctgac agagcaccag gccagccac	240
ggctggtggg cgaccaggag caggagctgc tggacacgct ggccgaccag ctgccccggc	300
tgctggcccc agcctcagag ctgcagacgg agtgcattgg gctgcggaag gggcatggca	360

cgctgggcca gggcctcagc gccctgcaga gtgagcaggg ccgcctcatc cagcttctct 420
 ctgagagcca gggccacatg gctcacctgg tgaactccgt cagcgacatc ctggatgccc 480
 tgcagaggga ccgggggctg ggccggcccc gcaacaaggc cgaccttcag agagcgctg 540
 cccggggaac ccggccccgg ggcttgtgcc actggctccc ggccccgaga ctgtcttgga 600
 cgtcctncta agcgggacaa gcaaggacga tggcgtctac tctggncitt tcccaccca 660
 attacccng gcccgggctt ttccaagggtg gt 692

<210> 3800

<211> 784

<212> DNA

<213> Homo sapiens

<400> 3800

caaacagcag aaggaggtag agaaggttaa accccagtgt aaggaagttc atcagaccct 60
 gattctggac ccagcacaaa ggaagagact ccagcagcag atgcagcagc atgttcagct 120
 cttgacacaa atccaccttc ttgccacctg caaccccaat ctcaatccgg aggccagtag 180
 caccaggata tgtcttaaag agctgggaac ctttgctcaa agctccatcg cccttcacca 240
 tcagtacaac cccaagtttc agaccctgtt ccaaccctgt aacttgatgg gagctatgca 300
 gctgattgaa gacttcagca cacatgtcag cattgactgc agccctcata aaactgtcaa 360
 gaagactgcc aatgaatttc cctgtttgcc aaagcaagtg gcttggatcc tggccacaag 420
 caaggttttc atgtatccag agttacttcc agtgtgttcc ctgaaggcaa agaatcccca 480
 ggataagatc ctcttcacca aggctgagga caatttgta gctttaggac tgaagcattt 540
 tgaagggact gagtttctta accctctaata cagcaagtac cttctaacct gcaagactgc 600
 ccggcaactg acagtgagaa tcaagaacct caacatgaac agagcttctg acaacatcat 660
 taaattttat aagaagacca aacagctgcc agtcctagga aaatgctgtg aagagatcca 720
 gccncattna gtgggaagcc ncctattgag agaggaagaa caccgggttc caatctgggt 780
 taaa. 784

<210> 3801

<211> 740

<212> DNA

<213> Homo sapiens

<400> 3801

```

gagttgatat cttcccatcc acccgccgct tctttcctcc atctagcgat ttttattttt 60
taagtgtctc ttcctttttc tttcttttct tcttttttat tttttatata tatttttttg 120
cattgctttg cagatgttgg gatgagagtc ggagccgaat accaagctcg gatccctgaa 180
tttgatccag gtgctacaaa gtacacagat aaagacaatg gagggatgct tgtatgggtct 240
ccatatcaca gtatcccaga tgccaaattg gatgaatata ttgcaattgc aaaggaaaag 300
catggctaca atgtggaaca ggcacttggc atgttggttct ggcataaaca taacattgag 360
aagtccttg ctgatctccc taatttctact ccctttccgg atgagtggac agtggaagat 420
aaagtcctat ttgaacaagc ctttagtttt catggaaaga gctttcacag gattcagcaa 480
atgcttccag ataagacaat tgcaagcctt gtaaaatatt actattcttg gaaaaaaact 540
cgctctagga caagtttgat ggatcgccag gctcgtaaac tagctaatac acataatcag 600
ggtgacagtg atgatgatgt agaagaaaca cattcaatgg atgggaatga tagtgattat 660
gatcccaaaa aagaagccca aaaaganggt aatactggac aacctgttcn aactagccag 720
aatggacttg ggaanaaaga 740

```

<210> 3802

<211> 784

<212> DNA

<213> Homo sapiens

<400> 3802

```

gaaacagata ttaacaaact aaaaccccag caagaaccgg gacgaacaat agaagatcta 60
aaaatgtatg aacacctttt ccctgagctt gttgatgatt ttcaggacta tgatttaatc 120
tccaaagaac caaagccttt tgtattttgag ggaaaagtac gtggtcctat tgttgttcct 180
acggcaggcg aggaaacatc tgggaattct ggcaatttaa gaaagggtgt aatgaaggag 240

```


aacatatctt ctaaaggaga tgaagggtgaa aagaagtcta cctttgtgga tctagcaaaa 300
 gaagatatta aagataatga tagaacatta caacagcagc caggatgatca aaatagaact 360
 atttcatcag tccatggttt aaacaatgat attgtaaagg ccttggaccg aattacattg 420
 cagaatattc ctctccttcaac agccccaggt tttactgcag aaatgaagaa ggactgcagt 480
 ctctccttca ctgtccttac ctgtgctaaa gcatgtccac acatggctac ttgtggaaat 540
 gttctgtttg agggaagaac agttcagcta gggaagcttt gctgcactgg agttgaaact 600
 gaagatgatg aagatactga gtcaaattca tcggtagaac aagcatcggg tgaagtacct 660
 gatggacca cacttcatga cccagacctc tatattgagg attgtgaaaa atacgaaant 720
 ctgtcccaga atattcagaa ggnggcttat cccgaatatt ttgggcacan ttccggcttc 780
 cttt 784

<210> 3803

<211> 806

<212> DNA

<213> Homo sapiens

<400> 3803

atgcaagaag catcgactca gctggaagac tctctcctgg ggaagatgct ggagacgtgt 60
 ggagatgctg agaatcagct ggctctcgag ctctcccagc acgaagtctt tgttgagaag 120
 gagatcgtgg accctctgta cggcatagct gaggtggaga ttcccaacat ccagaagcag 180
 aggaagcagc ttgcaagatt ggtgttagac tgggattcag tcagagccag gtggaaccaa 240
 gctcacaaat cctcaggaac caactttcag gggcttccat caaaaataga tactctaaag 300
 gaagagatgg atgaagctgg aaataaagta gaacagtgca aggatcaact tgcagcagac 360
 atgtacaact ttatggccaa agaaggggag tatggcaaat tctttgttac gttattagaa 420
 gcccaagcag attaccatag aaaagcatta gcagtcttag aaaagaccct ccccgaaatg 480
 cgagcccatc aagataagtg ggcggaaaaa ccagcctttg ggactcccct agcagaacac 540
 ctgaagagga gcgggcgcga gattgcgctg cccattgaag cctgtgtcat gctgcttctg 600
 gagacaggca tgaaggagga nggccttttc cgaattgggg ctggggcctn caagttaaag 660
 aagctgaaag ctgctttgga ctggtctact tctcacctgg atgagttcta ttcagacccc 720

catgctgtag caggtgcttt aaaatcctat ttaccggaat tgnctgacct ttgatgactt 780
ttaatctgga tgaanaatgg ncccag 806

<210> 3804

<211> 695

<212> DNA

<213> Homo sapiens

<400> 3804

atcttgtgtt gttgaggctg aggactgact ggggttctga gactccctgt cccggaccgc 60
agattatagt gggaccagtc tcattaggtt gaatctacag cctatgttgg tgttaacca 120
ggtctcttag agcgttaaaa ggatctgaac aaagtctgct caaatctcct gctgtgaacc 180
agcagaattt ttgaacagag accacgtctc cacctcctgg gctccaacga ttctcccatc 240
ttggcctccc aaagcgctgg atttacaggt ttcttcacat ataaaaatct attgtaaaaa 300
tacggaacag aatggcagcg gaaacgcaga cactgaactt tgggcctgaa tggctccgag 360
ctctgtccag tgggtggagt attacatccc ctctctttc tccagcattg ccgaagtata 420
aattagcaga ttatcgttac ggcagagaag aaatgtagc acttttcctt aaagacaaca 480
agataccttc agaccttctg gataaagaat ttctgcctat cctccaggag gaacccttc 540
caccattggc tctggtaccc ttacagaag aagaacagag aaacttttcc atgtctgtaa 600
atagtgtgc tgtcctgcga ttgacaggac gaggaggagg aggaacagtg gtgggggctc 660
ctagaggctg aagttcttca aganggccan gcana 695

<210> 3805

<211> 745

<212> DNA

<213> Homo sapiens

<400> 3805

aaatactgcc aggattttac cacctctcgc ccatttattt acttctcggt caccgctttc 60

gggggacaga taaacaccac agatgcccat caaaggggcg cacgggtctg gaggcgcagc 120
 tcangttttt gcgttgggtca ccctgccctc cgcacgtgga gagggcaggc ataaagcacc 180
 ttgaaaggaa ggtgctgtca atgctatccg acgacctgtc gccgggcacc gcagcatcct 240
 cgctcgctcc gatgggacga gggacgccgg cccagggtta acaggaggcg cctcgccggc 300
 cgcgcgctgg atgctgtgat ccaggtcgg agccgggttc cgccgcggcc gcagcgaccc 360
 gacccacccc gacaggccag agaaacagaa aggtcaaagc attctggaaa tggtagacac 420
 aaatctgaga gaaagtcacc tgaagagaat ctacaagggt ctgtaaaatc tttctgcaca 480
 agtgcctcan gagcaccctt gggtcceaaa ggagatggtc attatccatg gagttgtcca 540
 gtgactcata cacgggaaaa aatttatgcc atctgttcng actatgcctt tctcaaccag 600
 gcgacctcan tctataaaac tncaaataca tcccgtcttt cttgctcctg atagtacctc 660
 tttatctgct ggaaataatt catcangata cattgggtatc ccgactagta catcggaat 720
 tatntncatt gaaaaaattg cttgg 745

<210> 3806

<211> 849

<212> DNA

<213> Homo sapiens

<400> 3806

cgagctcgcc cgctgtccgc cagcccgcgg gagggaggag agaagcgaag cgtttccgcg 60
 gttggctact cagtgtcttg gtctcaagtt gcctcattgc ggctggcggt cccaatacag 120
 acgcatcggt tcttttttaa tactccctaa gaaagggaat aaccttcaag ctggcgggag 180
 caatggttca cataaagaaa ggcgagctga cccaggagga gaaggagcta ctggaagtca 240
 tcgggaaagg tactgtccaa gaagctggaa cattattatc cagcaagaat gttcgtgtca 300
 actgtttgga cgagaatgga atgactcctc taatgcatgc agcatataaa ggaaaactcg 360
 atatgtgcaa attactactg cgacatggag ccgatgtaaa ttgtcatcag catgaacatg 420
 gatacacagc cctcatgttt gctgcacttt ctggtaataa agacatcaca tgggtaatgt 480
 tagaagctgg tgctgagaca gatgttgtca actctgtggg aagaacagca gctcagatgg 540
 cagcctttgt gggtaacat gatttgttga ccataatcaa caatttcctt cctcgagaga 600

gactggatta ttacactaag cccanggac tgggtaaaga gccaaaactg cccccaaagt 660
 tggcaggccc gctgcacaaa attatcacca caacgaatct tcatcctgtc aagatcgtga 720
 tgctttgtaa atgaagaatc ctcttgcttg cagaaagaag cagcccctga ataaatgcta 780
 cagagtgatg gatttgattt gngagaaatg tatgaacana gagacctgaa ttgaaatatt 840
 ggctttnaa 849

<210> 3807

<211> 770

<212> DNA

<213> Homo sapiens

<400> 3807

agttggcgac atggtggcac ccgtgctgga gacttctcac gtgttttgct gcccaaaccg 60
 ggtgcgggga gtcctgaact ggagctctgg gccagagga cttctggcct ttggcacgtc 120
 ctgctccgtg gtgctctatg accccctgaa aagggttggt gttaccaact tgaatgggtca 180
 caccgcccga gtcaattgca tacagtggat ttgtaaacag gatggctccc cttctactga 240
 attagtttct ggaggatctg ataatacaagt gattcactgg gaaatagagg ataatacagct 300
 tttaaaagca gtgcatcttc aaggccatga aggacctgtt tatgcggtgc atgctgttta 360
 ccagaggagg acatcagatc ctgcattatg tacactgac gtttctgcag ctgcagattc 420
 tgctgttcga ctctggtcta aaaaggggtcc agaagtaatg tgccttcaga ctttaaactt 480
 tggaaatgga tttgctttgg ctctctgctt atcttttttg ccaaatactg atgtaccaat 540
 attagcatgt ggcaatgatg attgcagaat tcacatatat gctcaacaaa atgatacagtt 600
 tcagaaagtg ctttctctct gtggacatga ngattggatt anaggantgg aatgggcaac 660
 ctttggtaga gatcttttcc tagcaagctg ttcacaagat tgcctgataa gaatatggaa 720
 actgtatatt aagtcaacat ntttanaaac ttcaggatga ccattacntt 770

<210> 3808

<211> 692

<212> DNA

<213> Homo sapiens

<400> 3808

```

aaaagaagaa acgcaggcgg ggcagaaaag aggagcccga aggtggtagc aggccggcgt 60
gtggggggagc tggcaccag gggcctgtgc agctgggtcaa ggaggtgggt gccgaggatg 120
gcaccgtggt caccattaag cagggtgtca ccgcgccagg ctcggcgggg cagccccggt 180
ctgaggacga agacagcctt gaggaggccg gcagccccgc acctgggccg tgtccacgct 240
ccaacgccat gctggctgtg aagcatgggg tgctctacgt ctatgggggc atgtttgagg 300
ccggcgaccg ccaggtcacc ctccagcacc tgcactgcct ggacctgcac aggatggagg 360
cgtggaaggc cttggtggag atggaccag aaactcagga gtggctggag gagacggact 420
cggaagagga cagtaggag gttgaggcg ccgagggtgg ggtcgacgac naagacagcg 480
gagaggagag cggcgcggag gactgangct gtgacaaacc ctgtgcccac gctgccttca 540
ctgccgggag actcanggct tgggggagac atgccctggt caccacttgc ggagactcan 600
ggcttggggg gagacatgcc ctggccacca ntggtgaacc agccgaagac aggaccccaa 660
cgcgccgctt acccggggac nccatggaac tt 692

```

<210> 3809

<211> 850

<212> DNA

<213> Homo sapiens

<400> 3809

```

aacctcgtgc tttctgcaga ggagaccgga ggcagaagg cagagtccag gcttagactg 60
cagttcctcg cttacctgtg cagtctaatt ttgagctgcc tctttgtagt cttaaaaggc 120
aggagcttcg tgttggtggg ctgctaacc gtacgtttcc gtgggcaagt cgtgtgtact 180
cctcgccatg gctcagctcc aaacacgctt ctacactgat aacaagaaat atgccgtaga 240
tgatgttccc ttctcaatcc ctgctgcctc tgaaattgcc gaccttagta acatcatcaa 300
taaaactacta aaggacaaaa atgagttcca caaacatgtg gagtttgatt tccttattaa 360
gggccagttt ctgcgaatgc ccttgacaa acacatggaa atggagaacg tctcatcaga 420

```

agaagttgtg gaaatagaat acgtggagaa gtatactgca cccagccag agcaatgcat 480
 gttccatgat gactggatca gttcaattaa aggggcagag gaatggatct tgactggttc 540
 ttatgataag acttctcgga tctggtcctt ggaaggaaag tcaataatga caattgtggg 600
 acatacggat gttgtaaaag atgtggcctg ggtgaaaaaa gatagtttgt cctgcttatt 660
 attgagtgtc tctatggatc agactattct cttatgggag tggaatgtan agagaaacaa 720
 agtgaaagcc ctacactgct gtanangtca tgctggaagt gtagattcta tagctgggtga 780
 tggctcagga actaaatttg cagtggcttc tgggataaga tgctaaagat ctggctacag 840
 tccctacaga 850

<210> 3810

<211> 849

<212> DNA

<213> Homo sapiens

<400> 3810

aaagtccttg caccatgtag atcagcgctc cccactttgg catcccggcc ggccggggac 60
 ctcccagtct gcggccatga acgcgagcag cgaggcgag agcttcgcgg gctcgggtgca 120
 aattccaggt ggcaaacgg tgctgggtgga gctgactccc gacatccata tctgcggcat 180
 ctgcaagcag cagttaaca acctggatgc cttttagct cacaagcaaa gtggctgcca 240
 gctgacaggc acatccgcag cagccccag cacgggtccag tttgtatcgg aggaaacagt 300
 gcctgccacc cagactcaga ccaccaccag aaccatcacc tcggagaccc agacaatcac 360
 aggttgccaa ttcaagactg cttatggcat gaaggacatg gagcggcatt taaaaattca 420
 cacgggagac aaacccata agtgtgaagt ctgtggcaag tgcttttagcc ggaaagacaa 480
 gctgaaaact cacatgcggt gccacacggg cgtgaagccc tacaagtgtg agacgtgtga 540
 ctacgccgct gccgacagca gcagcctcaa caagcacctg aggatccact cggacgagcg 600
 gcccttcaaa tgccagatct gccctacgcc agccgcaact ccagccagct nctgtccacc 660
 tgcgatccca cacgggggac gcccccttc agtgctggct ctgtagcgcc aagttcaaaa 720
 tcagctcgga cttgaaaang cacattgcgg gtgcacttcg ggggagaacc tttcaagtgc 780
 aattctgcaa tgtccgntga ccatgaaggg gaaccttaag tcgcacatcc gtatcaagcc 840

cagcgggan

849

<210> 3811

<211> 793

<212> DNA

<213> Homo sapiens

<400> 3811

```

gttgagcgg cgctgctcgg ccgcggacac acgagggacg cgcccgagga gctgcaggtg 60
gcagcccagg cgggccgaac ccgtcggccg gccgagcctg gagtattgcc taagtgtaat 120
cttgaacatg ggcggtgctg tgagtgtcgg tgaagacaat gaagagctga tagataattt 180
gaaagaagca cagtatatcc ggactgagct ggtagagcag gctttcagag ctatcgatcg 240
tgcagactat tatcttgaag aatttaaaga aaatgcttat aaagacttgg catggaagca 300
tggaaacatt cacctctcag ccccgatcat ctactcggag gtgatggaag ccctagatct 360
gcagcctgga ctctcgtttc tgaacctggg cagtggcact gggtatctca gctccatggt 420
gggcctcatt ctaggtcctt ttggtgtgaa ccatggggtg gaacttcact cagatgtgat 480
agagtatgca aagcagaaac tggacttctt catcagaaca agtgatagtt ttgacaagtt 540
tgacttctgt gaaccttctt ttgttactgg gaattgcctg gagatttctc cggattgttc 600
tcagtatgat cgtgtatact gtggggctgg cgtgcagaaa gagcatgaag agtacatgaa 660
gaatcttctc aaagtgggag ggatccttgt catgccactg gaagagaagt tgactaagat 720
aacacgcaca ggtccttcac ttgggaaacc naaaagattc tgctggttct tttgctnctc 780
tgatccancc ctg 793

```

<210> 3812

<211> 825

<212> DNA

<213> Homo sapiens

<400> 3812

agcaaataat caatttagca ttacaaaaaa cagggatggt agggaaaata gaaggagaaa 60
 actctaaaat aggtgatgat aatgaaaatt taacctttta attagaagta aatgagctga 120
 gtggtaaatt agacaacact aacgaatata atagtaatga tggtaagaaa ttaccccagg 180
 gtgaatcacg aagttacgaa gtcatgggaa gtatggaaga aaccttatgc aatatagatg 240
 acagagatgg aaatcgcaat gtccatttag aatttacaga aagagagagt aggaaggatg 300
 gagaggatga atttgtcaaa gaaatgagag aggaaagaaa atttcagaaa ttgaagaata 360
 aagaggaggt tttaaaagcc tccagagaag aaaaagtgtt gatggatgaa ggagcagtac 420
 ttaccctggc agccgacctt tcatcagcaa cactggatat tagtaagcaa tggagtaatg 480
 tcttcaacat tctgagagaa aatgattttg aacctaaatt tctgtgtgaa gttaaattag 540
 catttaaatg tgatggtgaa ataaagacat tttcagatct gcaaagcctt agaaaatttg 600
 ccagccaaaa atcttctatg aaagaattac tgaaagatgt actcccacaa aaggaagaaa 660
 taaatcaagg aggaagaaaa tatggaattc aagaaaaaag ggataaaacc ctaatagact 720
 caaagcatag agctggagaa atnaccagtg atggcttgag cttcctatit cttaaagaag 780
 taaaagttgc taagccngan gagatgaaaa cttagagact cagga 825

<210> 3813

<211> 743

<212> DNA

<213> Homo sapiens

<400> 3813

agcaaccatt gctagtaatt ctttaatgtg tataaattca atttcaggta taacaaatgt 60
 gatcatgaca tgaaaatatt ctagaataga tactgtatta aatattgcca tgtttacaat 120
 atgtaatatg tttttagccg atggatttaa acatgtagat tcaactagaa tccatttgtg 180
 atatttgtaa ataaaggtag aaatattaga tccatttctg cagaacttac tgtacagttt 240
 agttggagt tagcactgaa gaactgtcag ctcagcgttg actgaggaga tagtgaaaat 300
 agcctataca cagcatcttg tgaaaagtac tggcagccgt ggttgcagca aataataggg 360
 caaaaaaat aataataggg tggtcggttc ctttcatct ccttcttctg aaaggaaaaa 420
 attgaattgg aacgttcaag tccagtttgt gttcagtcac aaaactgggc cagttgttaa 480

ccttacagaa tgagtcattg gccagacct tcaagtccaa ggccttcaga cactaaggat 540
 gggaaaatgg gtatttttct ttggagaaaa gctggaaata taaacatggc atttttaggt 600
 aaagctcttc cactagttga attttcatgc ncatattttt tcttaaccgt tggtgccagt 660
 naagcnaaga gtattatgat ggaaaaagac cagtccaagc cccatcggtc cggaatggga 720
 gcccatggtc ttggctaata ggt 743

<210> 3814

<211> 812

<212> DNA

<213> Homo sapiens

<400> 3814

cgcacgttct ggctggcacc gctaatacga cggttgcaa aagaacatg actttgcctg 60
 gcgagaacgg tcaaaacttg gtggaatgga gattccgaaa agagcaagcc caagggaaag 120
 tcaatgtctt tggccgcaag ctacaggtta atggcagaaa cctcctttca gttgactttg 180
 atcgaacaac aaagacagaa aagatctatg acgaccaccg taaatttcta ctgaggatcg 240
 cctacgacac gtctgggcac ccgactctct ggctgccaag cagcaagctg atggccgtca 300
 atgtcaccta ttcattccca ggtcaaattg ccagcatcca gcgaggcacc actagcgaga 360
 aagtagatta tgacggacag gggaggatcg tgtctcgggt ctttgctgat ggtaaacat 420
 ggagttacac atatttagaa aagtcattgg ttcttctgct tcatagccag cggcagtaca 480
 tcttcgaata cgatatgttg gaccgcctgt ctgccatcac catgccaggt gtggctcgcc 540
 acaccatgca gaccatccga tccattggct actaccgcaa catatacaac cccccgaaa 600
 gcaacgcctc catcatcacg gactacaacg aggaagggt gcttctacaa acagctttct 660
 tgggtacaag tcgganggtc ttattcaaat acagaaggca gactangctc tcagaaattt 720
 tatatgatag cacaagaagt cagntttacc tatgatgaaa cagcaggagt cctaaagaca 780
 gtaaaccttc agaggngatg gtttanttgc cc 812

<210> 3815

<211> 771

<212> DNA

<213> Homo sapiens

<400> 3815

```

ggagacgcgg cggcgctgga cgcggaggcg ctgggcgcac ggCgcggagc cggccggagc 60
tcgaggccgg cggcggcggg agagcgaccc gggcggcctc gtagcggggc cccggatccc 120
cgagtggcgg ccggagcctc gaaaagagat tctcagcgct gattttgaga tgatgggctt 180
gggaaacggg cgtcgcagca tgaagtcgcc gccctcgtg ctggccgcc tggtggcctg 240
catcatcgtc ttgggcttca actactggat tgcgagctcc cggancgtgg acctccagac 300
acggatcatg gagctggaag gcagggtccg cagggcggtc gcagagagag gcgccgtgga 360
gctgaagaag aacgagttcc agggagagct ggagaagcat cgggagcagc ttgacaaaat 420
ccagtccagc cacaacttcc agctggagag cgtcaacaag ctgtaccagg acgaaaaggc 480
ggttttggtg aataacatna ccacaggtga gaggctcatc cgagtgctgc aagaccagtt 540
aaagaccctg cagaggaatt acggcaggct gcagcaggat gtcctncagt ttcagaagaa 600
ccagaccaac ctggagagga agttctccta cgacctgagc cagtgcacat atcagatgaa 660
ggaagttgaa ggaacagtgt gaggaaccga aatttaagag gtcaccaaaa agggggaatg 720
aancttgtn ctttccagag accttgaatn gaaaaaccaa cgaaccagaa g 771

```

<210> 3816

<211> 850

<212> DNA

<213> Homo sapiens

<400> 3816

```

gtgaaaggag ggaacgcagg tgagaaagcg agacaggcag gtagggaaat cgtgaggtga 60
gcgtgatcct agctccttgt ggcagagcct agagagaagg cgaggacgct gaagaaccag 120
gcggacagct ggcagagaga gaagttggct agcatggaat caccagagga gcctggagca 180
tccatggatg agaactactt tgtgaactac actttcaaag atcggtcaca ttcaggccgt 240
gtggctcaag gcatcatgaa actgtgtcta gaggaggagc tctttgctga tgtcaccatt 300

```

tcggtggaag gccgggagtt tcagctccat cggtcgttcc tctcagctca gagctgcttc 360
 ttccgatcca tgttcacttc caacctgaag gaggcccaca accgggtgat tgtgctgcag 420
 gatgtcagcg agtctgtttt ccagctcctg gttgattata tctaccatgg gactgtgaaa 480
 cttcagagctg aggagttgca ggaaatttat gaggtgtcag acatgtatca gctgacatct 540
 ctctttgagg aatgctctcg gtttttggcc cgcacagtgc aagtgggaaa ctgccttcag 600
 gtgatgtggc tggcagatcg gcacagtgat cctgagctct atacggctgc caagcactgt 660
 gccaagaccc acctggccca gctgcagaat acagaggaat ttctncaactt gccccaccgc 720
 ttactccaga tatcatctcg gatggagttc cgtgtttctca gacccaacag aggcaataga 780
 acctggatca ctttataaan angaaagaaa ngcttttgca gaatcctcag gacagcttga 840
 aggaaattgg 850

<210> 3817

<211> 823

<212> DNA

<213> Homo sapiens

<400> 3817

gtacttgggc anagctcccc ggggttcatt gncttcgctt cacaggatct gtttgagtcc 60
 tgtccaccgg atcctacggg gggtaccttc gaaaaaaaaac gggctatgct gctgttgctg 120
 gtgggtaccc tctcctgacg cctccgccgc ccgggtcatg tggaccctcg tgggtcgggg 180
 ctgggggtgc gcacgcgctc tcgcgccacg agccactggg gccgngcttc tgggtggcccc 240
 ggggccccgg nccgcgccga cccttggggc tgctccagag tcctgggcta ccgacaggct 300
 ctacagctcc gcagaattca aggaaaaacc tgacatgtct aggtttcctg ttgaaaatat 360
 tagaaatttc agtattgttg cacacgtgga tcatggcaaa agtactttta ctgacaggct 420
 cctagaactt acagggacaa ttgataaaac aaagaataat aagcaggttc ttgataaatt 480
 gcaagtggaa cgagaaagag gaatcactgt taaagcacag acagcatctc tcttttacia 540
 ttgtgaagga aagcagtacc ttttaaactc cattgataca ccgggccatg ttgattttag 600
 ttatgaagta tccaggtcac tttctgcttg ccagggtgtt ttacttgtgg ttgatgcaaa 660
 tgagggaatt caagcccaaa ctgtagcaaa cttctttctt gccttcgaag cacagctatc 720

ggtaattcca gttntaaata agatagatct gaagaatgct gacacctgaaa nggttgaaaa 780
ccaaattgag aaagtgggtg atatttccaa gtgatgaaat gna 823

<210> 3818

<211> 879

<212> DNA

<213> Homo sapiens

<400> 3818

ttggatattg aatctgtaat taccttttat tgtaaatac gtaacattaa atatagcaca 60
tcccttagct ggatacatct actgaaacca ttggtgcac ttcaactgcc acgcagcgat 120
ttatacaact gcttttatgc cataatgaat aagtacattc ccagggattg ttcccagaaa 180
gggagaccat ttcactctct caggttgctc atccaatacc atgagcctga gctttgttct 240
tatcttgata caaagaaaat tactccagac tccatgcac tcaactggct tggaagtctt 300
tttgcattgt actgttccac tgaagtcact caggcaatat gggatggata tctacaacaa 360
gcagatccat tttttattta tttcttaatg ttaattatcc ttgttaatgc aaaagaagtt 420
attttaacac aagagtcaga cagcaaagaa gaagttatca agttcttgga aaatactcca 480
tccagtctga atatagaaga tatagaagac cttttctctc tggctcagta ttattgcagc 540
aaaacaccgg cttcttttag gaaggataat caccatctct ttggtagtac tttgttggga 600
attaaggatg atgatgcaga tctgagtcag gctctttgtc tggccatctc cgtgtcagag 660
atccttcaag cgaatcagct acaaggggaa ggagtcagggt tctttgttgt ggattgccgt 720
cctgcagaac aatataatgc tgggcattta tcaactgctt tcccttanat tcagacctga 780
gcttcagaat ccacttgagt tgcacagtca gtaaaatcct gctggaaccc agaagcagtc 840
catgggtctg gggtcataac ttggtgggga gcaccttgt 879

<210> 3819

<211> 735

<212> DNA

<213> Homo sapiens

<400> 3819

```

ggattttttc tgaaccagcc aggaaatacc ggaacccacc aaacttttaa caccagccta 60
aattattcct gttcttttaa gcaggcagca gaaatgacag aaacccgta acagaaaaaa 120
aaaaaataat gcttttcatt tgaactcctg tgcattttct ttttaactta tatgtgttcc 180
taattttcct tactcttttt gtttgtttgt ttcttagtgt ggtttattga caatcattta 240
caatgccgaa gagtgctgta gtgagccagc acagtgggta acacagcaac ggagaacaga 300
tgcaggtttg aggaatttaa cttgctaaaa ccttgaactg aagtcttaga gattggaaca 360
tacgggtttg tataaatagg cttttaagcc ctgtttgcaa tgggttactg ataggagaaa 420
cttgcttggt gaatgtcagc tgcgtgagct cactgtcaga caagatggaa gaagaagggc 480
tggagtgtcc aaactcttcc tctgaaaaac gctattttcc tgaatccctg gattccagcg 540
atggggatga ggaagaggtt ttggcctgtg aggatttgga acttaacccc ttgatggat 600
tgccatattc atcacgttat tataaacttc tgaaagaaag agaagatctt cctatatgga 660
aagaaaaata ctcttttatg ganaacctgc ttcaaaaac aaatcgngat tggttcangg 720
agatgctaaa tgtgg 735

```

<210> 3820

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3820

```

agcggcccgg ccgggggggc aagatggcgg cggcagtagg ggttcgtggc cggtacgagc 60
tgccgccttg ctccggccca ggctggctcc tcagcctttc cgccttgctg agtgtggcgg 120
cacgaggggc cttcgccacc acgcactggg tcgtcacgga ggacgggaaa atccagcagc 180
aggtggattc accaatgaac ttgaagcatc ctcatgacct agtcatatta atgagacaag 240
aagcaacagt taactacctc aaagaattag agaaacaatt agttgctcaa aaaattcaca 300
tagaagagaa tgaggacaga gacacaggac tggaacagag acataataaa gaagaccag 360
actgcatcaa agccaaggtg cccttagggg acctggatct atatgatggc acatacataa 420

```

ctttggagag caaagacatc agtcctgaag attatataga cacagaatct cctgtccctc 480
 cagacccaga gcaacctgat tgtactaaaa ttctagaact tccatgtagt atacatgctt 540
 ttcagcactt gagaggtgta caggagagag ttaatctttc tgcacctctg ctacctaaag 600
 aagacccaat cttcacatat ttatctaaac ggtaggaag gagtatagat gacataggtc 660
 acctcattca tgaaggccta cagaagaaca cttcctcgtg ggtactgnat aacatggctt 720
 cattttactg gagaattaag aatgagccat atcangtagt agaatgtgcc atgccagcac 780
 ttcacttctc tttcaggcnc aattaaaaga canttg 816

<210> 3821

<211> 887

<212> DNA

<213> Homo sapiens

<400> 3821

tgtttttatg ttaaaccaaa catgtctctt cggaacacag tctgtatata aataacatgc 60
 atgaggactt tccatttaat ctgtgattca gccacatgat gtttttgcca aatgatgtga 120
 tactttccaa agcaccttga gtgtgaaatg tcaacagaaa taccagcaag cttttatgtt 180
 gcagagtatt atggtacctc tgaattagcc tgtatagttc tcttcctgct ttaagcatta 240
 cctggtttagc tcagacggct tgaggcagtc ccttaataat agggatgctt ttcattctta 300
 aggatgtaag aggcaaaca atcatgtcat tctttaagt ggctatgctt tgatagatgt 360
 gctcttttaa ggtgtgagat tggaatttag agttgttaaa ttgaaatgtt tgcattgcac 420
 caaaggagct cagttttcaa actttaatgg aaccttgggt aaagggaata aatttttaat 480
 gaaatctggg gttttatatt ttgattagcc taaaagtaaa aatacagctt tatccattaa 540
 gtgactttta aaaatcagtt ttgccatacc aaagaaatta gattcttagt gtcacatgct 600
 atacttttgt ctgtgcttga aacgagcaat gccaacattg ggagcaatga cagaggtttg 660
 catcagtttg tcttggtttt ggtaaggact tctgccagaa atgtgctcgt ggttgacaac 720
 ccaggatcat tggtaagtt cttatgcaga cacctttgaa aacaattcag atcgtgtcac 780
 aagaatctgg gaattgaaaa tatcatttat tttttaatgc caggaatacc canatgtggg 840
 ttcacttcag cagtancat aggggtcact tatatacat ctggtcn 887

<210> 3822

<211> 863

<212> DNA

<213> Homo sapiens

<400> 3822

```

acacatccgc gcagaccagg aagcggatcc cgtggattga aggtcgcacc gcggcggatt   60
gacttctaaa gacttggtac gtgaggaaaa aacacggaag aggaagagga aagcaaagga  120
gtcagggatg gctcttctc agggctctact gacattcagg gatgtggcca tagaattctc  180
tcaggaggag tggaaatgcc tggaccctgc tcagaggact ctatacagag acgtgatgct  240
ggagaattat aggaacctgg tctccctgga tacctcttcc aaatgcatga tgaagatgtt  300
ctcatcaaca ggacaaggca atacagaagt ggtccacaca gggacattgc aaatacatgc  360
aagtcatcac attggagata ctgtcttcca ggaaattgag aaagatatc atgactttgt  420
gtttcagtgg caagaaaatg aaacaaatgg ccatgaagca ctcatgacaa aaatcaaaaa  480
gttgatgagt agtacagagc gacatgatca aaggcatgct ggaaacaaac ctattaaaaa  540
tgagcttggg tcaagctttc attcgcatct gcctgaagtg cacatatctc accccgaagg  600
gaaaatttgt aatcaagttg agaaggccat caacgatgct ttctcagttt cagcatccca  660
acgaatttcc ttagggccaa aaactcgtat ttctaataag tataggaata atttctcca  720
gtcttcatta ctccacaaaa accgggaagt acacacaaga gaaaaatctt tncaacgtaa  780
tgagagtggc naagccttta atggtagctt acttcttaaa aaaacatcag attaatccat  840
ttaggagaca aacagtntaa atg                                     863

```

<210> 3823

<211> 835

<212> DNA

<213> Homo sapiens

<400> 3823

aaatccagca gctcttccag ctggtcagac agttcagcta actggacaac ctaacataac 60
 tccatcttct tcaccatcac ctgtcccagc tactaataac caagtccta ctgccatgtc 120
 gtcgtcctct acccctcaat cacagggacc acctctact gtcagtcaaa tgttatctgt 180
 gaaaaggcag caacagcagc aacattcacc agcaccccca ccacagcagg tacaagtaca 240
 agttcagcag cccaacagag tacagatgca agttcaacct caacagtcga atgcaggagt 300
 tggtcagcct gcctctggtg agtcgagtct gattaaacag cttctgcttc cgaaacgtgg 360
 tccttcaaca ccaggtggtg agcttattct cccagctcca cagattcctc cccctaataa 420
 tgcaagagct cctagccctc aggtggtcta tcaggtggcc agtaaccaag ccgcaggttt 480
 tggagtgcag gggcaaactc cagctcagca gctattgggtt gggcagcaaa atgttcagtt 540
 ggtcccaagt gcaatgccac cctcaggggg agtacaact gtgcccattt cgaacttaca 600
 aatattgcca ggtccactga tctcaaatag cccagcaacc attttccaag ggacttctgg 660
 caaccaggta accataacag ttgtgcaaaa tacgaagttt tgcacctgca actgtgagtc 720
 anggaaatgc aactcagctc attgcttcag canggaatta ccatgagcgg gaacgcagac 780
 aggagttggg actttcagta caaacgcttt ncaagccact tnaggcattt tcctg 835

<210> 3824

<211> 562

<212> DNA

<213> Homo sapiens

<400> 3824

gacgccgccc ccaccgcctc ctcagagcgg ggcccggggc cagccgccc caccgctgcc 60
 gccgccgagc tccggcgccc ncgagcacca tgggagacgc tgggagcgag cgcagcaaag 120
 cgcccagcct gccgcctcgc tgtccctgcg gcttctgggg gtccagcaag actatgaatc 180
 tctgttccaa atgctttgct gattttcaaa agaaacagcc agacgatgat tccgctccaa 240
 gtacaagtaa cagccaatca gatttgtttt ccgaagagac caccagtgc aacaacaata 300
 cctcgataac cagccaact cttagtccca gccagcagcc gcttccgaca gaactgaatg 360
 taacttcacc gagtaaagag gagtgtgggc catgcacaga cacagctcat gtctcattaa 420
 tcacaccaac aaaaagatcc tgtggtacag attcacagtc tgagaatgag gcttnaccag 480

taaaacggnc acgactactt gagaatacgg aacgggccga ggaaaccagt cgatctaaac 540
agaagagtcg acgtcngtgc tt 562

<210> 3825

<211> 831

<212> DNA

<213> Homo sapiens

<400> 3825

agttggcggg aatggctgct cgcggagggg cagtgtacgc ggggccgctg taggctgtcc 60
agcgatggat cccaccgcgg gaagcaagaa ggagcctgga ggaggcgagg cgactgagga 120
gggcgtgaat aggatcgcag tgccaaagcc gccctccatt gaggaattca gcatagtga 180
gcccattagc cggggcgcct tcgggaaagt gtatctgggg cagaaaggcg gcaaattgta 240
tgcagtaaag gttgttaaaa aagcagacat gatcaacaaa aatatgactc atcaggtcca 300
agctgagaga gatgcactgg cactaagcaa aagccattc attgtccatt tgtattattc 360
actgcagtct gcaaacaatg tctacttggg aatggaatat cttattgggg gagatgtcaa 420
gtctctccta catatatatg gttattttga tgaagagatg gctgtgaaat atatttctga 480
agtagcactg gctctagact accttcacag acatggaatc atccacaggg acttgaaacc 540
ggacaatatg cttatttcta atgagggtca tattaactg acggattttg gcctttcaaa 600
agttactttg aatagagata ttaatatgat ggatatacctt acaacaccat caatggcaaa 660
acctagacaa gattattcaa gaaccccagg acaagtgtta tcgcttatca actcgttggg 720
atttaacaca ccaattgcag aaaaaaatca agaaccctgc aaacatcctt tcaacctgct 780
gtcttgaaac attacagctt tnttaaggac tcgnatgccc ctatgnctgt a 831

<210> 3826

<211> 539

<212> DNA

<213> Homo sapiens

<400> 3826

```

atttattgag gggcgtatcc tagtggcccc catccggtct cgtttttgga agacccgcct 60
cggcacagcc aggctcagtc cggccttgcg ctgagaaaag atgacagcaa tcaagcatgc 120
attacaaaga gacattttta caccaaatga tgaacgcctg ctgagcattg tgaatgtctg 180
canagcagga aaaaagaaaa agaactgttt tttatgtgcc acagtgacaa ctgaacgcc 240
tgtgcagggt aaggtgggtca aagtcaagaa atccgataag ggagatttct acaaaggca 300
gattgcatgg gcccttcgag atcttgctgt ggtagatgcc aaagatgcta tcaaagaaaa 360
tcctgaattt gatttacact ttgaaaaaat atataaatgg gttgccagca gactgtctga 420
aaagaatgca tttatctcat gcatttgga attgaatcan cgatatctcc ggaagaaaat 480
tgattntgtc aatgttagct cacagctttt ggaagaatct gntccaagtg gagaaaatc 539

```

<210> 3827

<211> 860

<212> DNA

<213> Homo sapiens

<400> 3827

```

gtgctggcat caagtaagcc gactacctcg gcaaaggctt agggacaaga gaccagcagc 60
ctgaactggc tggggcatcc ggaaggctta gatcttgtgg ccaagagttc agaccgtggc 120
gaagtggaga gtgacatgca gttggatggc ggtgactgcg tggtatggaa gaaaattcag 180
ctgaaatttg ctagaaaatg agttgttttg gaaagagact gtagagaaag gcaaatggaa 240
gaagaaagct tctgtgcccc cacagatacc gactgaaaag tgtagcatg agcaaaagtt 300
cctatctaata attatatgct ttcctttgct cccaggtctt gcaaccctgg ttccagtctg 360
gcaagcattg tagacctggc tgctgaagac tgacggggcc cagggtccgc tgccccacc 420
gccatcacca cctcggaacc cagggtaacg ctgtcagtct ttggaccaac ctgctgtgct 480
ctaacaagaa ttccagaagt caccatccg aaaggcactg gcccatgaca ctctccactt 540
ccaatcttaa atcttttact tcataccttg tctcagatct ctcttggtac cccttcccca 600
cgcccttaga taatccatct caatccctca tgctaattga ggagctatgg ctgcaaggca 660
cctttcagga tttcacacct acncaaatct nctttttctc cttttgcctt ctctgcttat 720

```

gggatattct gagtccccac cccaatcac tgacagctgg gccccttcat taagctacac 780
accacgtatt aagtcaagtc acaatcttcc cttttctcta ctgctggatt tgctttctac 840
cacacccatg attcacgggt 860

<210> 3828

<211> 850

<212> DNA

<213> Homo sapiens

<400> 3828

ttgctacata tggaactatt attattagaa acctttcagt ggaacctctg ccttccaaca 60
gccgcccatt tcattgagta ttatctctct gaagcagtac acgaaacaga tcttcatgac 120
ggctggccaa tgatttgctt ggaaaagact aaactctaca tggccaaata tgcagattac 180
ttcctggaag tatctttgca agctgctgca tgtgtggctt cttcgaggat tatacttcgt 240
ctttctccaa cgtggcctac aagactacat cgtcttactg cctactcttg ggattttctta 300
gtgcagtgta ttgaacgact gttgatcgct catgataatg atgtgaaaga agcaaacaaa 360
cagagagggc aagcaggacc tcagtcagcg caactaagtg tattccagac agcctcccag 420
ccatcacggc cagttcactt tcagcaacct cagtatctcc atcagacaca tcagacctca 480
ctgcagtatc gccatcctac gtcagaacaa ccaagctgtc agcagattgt atcgaccaca 540
cacacctcat cttacacact acagacatgt cctgctggct tccaaactag tgttcagggc 600
cttgggcaca tgcagactgg tgttgggatg tcaactggcaa taccagtaga agttaagccc 660
tgtctgagtg tttcttacia ccggagttat cagataaatg aacattaccc ttgnattact 720
ccatgttttg aaaggtgatt atttgtgaag ctgataaccc gaccagact gctttgtgac 780
atgaactatg ggtaaccgtt ttggaaactt tggtaaang gaanggatct aatgacatc 840
gactnttagg 850

<210> 3829

<211> 202

<212> DNA

<213> Homo sapiens

<400> 3829

```
gggccatgag gtccaccagc cccagcaaga gcacaagagg aagagagaga ccctcactgc 60
tggggagtcc ctgccacact cagtccccca ccacactgaa tctcccctcc tcacagttgc 120
catgtagacc ccttgaagag gggagggggc tagggagccg caccttgtca tgtaccatca 180
ataaagtacc ctgtgctcaa cc 202
```

<210> 3830

<211> 880

<212> DNA

<213> Homo sapiens

<400> 3830

```
actagtgaga ggaagatggc ggccgcggct gtggtggttc ccgcagagtg gataaagaac 60
tgggagaaat caggagagg cgaatttttg catttatgtc ggatcctcag tgaaaataaa 120
agccatgata gttcaacata cagagatttc cagcaagctc tctatgagtt gtcatatcat 180
gtaattaaag gaaatctaaa gcatgaacag gcatctaag ttcttagtga cattagtga 240
tttcgtgagg atatgccctc cattcttgct gatgtattct gcatattaga cattgagaca 300
aattgttttag aagaaaaaag caagagagac tattttacac agttggtatt agcatgtttg 360
tttcagacac agttctaaag gaacgcctgg atccagaaac actggaatca ttagggctta 420
tcaaacaatc acagcagttc aatcaaaagt cagttaaaat caagacaaaa ctcttttata 480
agcagcaaaa attcaatttg ttaagagaag agaatgaagg ttatgccaag ctgattgctg 540
aattggggca agatttatct ggaagtatta ctagtgattt aatcttagaa aatatcaa 600
ctttaatagg atgctttaat ctggatccca atagagtttt ggatgtcatt ttagaagtgt 660
ttgaatgcag gccagaacac gatgacttct ttatatcttt ggtagaatct tacatgagta 720
tgtgtgaacc gcaaacactg tgtcatattc tttgggttca aattcaagtt ttaccagga 780
accnaatggc gaagacacca tcatttttat accgagttgc agcagtactt ntacaattta 840
atcttattgg tttaanatga tccttatgtc catcttcttc 880
```

<210> 3831

<211> 824

<212> DNA

<213> Homo sapiens

<400> 3831

```

aaacgcaggt agccaaagtg gcttgtggag tggcgaccgt tagtgaggcg gttgctgaga 60
cagacgctga ggcgggtagg aggagcccga gccgtaaggg aagccgtgat gagggccgtg 120
ttgacgtgga gagataaagc cgagcactgt ataaatgaca tcgcatttaa gcctgatgga 180
actcaactga ttttggctgc cggaagcaga ttactggttt atgacacctc tgatggcacc 240
ttacttcagc ccctcaaggg acacaaagac actgtgtact gtgtggcata tgcgaaggat 300
ggcaagcgct ttgcttctgg atcagctgac aaaagcgtaa ttatctggac atcaaaactg 360
gaaggcattc tgaagtacac gcacaatgat gctatacaat gtgtctccta caatcctatt 420
actcatcaac tggcatcttg ttcttcagc gactttgggt tgtggtctcc tgaacagaag 480
tctgtctcca aacacaaatc aagcagcaag atcatctgct gcagctggac aaatgatggt 540
cagtacctgg cgctggggat gttcaatggg atcatcagca tacggaacaa aaatggcgag 600
gagaaagtaa agatcgagcg gccggggggc tccctctcgc caataatggc catctgctgg 660
aacccttcaa gagaggaacg taatgacatc ctgctgtggc tgactgggga cagaaagttt 720
ccttctacca ctgagtggaa aacagattgg aaaggatcng gcactgactt tgaccctgc 780
tgcatnactc ttactaaag gcagtacatt ttgctngggg gtta 824

```

<210> 3832

<211> 828

<212> DNA

<213> Homo sapiens

<400> 3832

```

tttattgacc acagccactt tagaaaagct tcctgtaccc caggtcagtg caactacagc 60

```

acctgctgga tcagctccac cctcgagcac tttgccagca gcttctagcc ttaaaacccc 120
 aggaacttct ttaaacaatga atggacccac ttttaagacca acctctagta tccctgctaa 180
 taatccttta gtgactcagc tgcttcaagg caaagatggt cccatggagc aaattctgcc 240
 taaacctctc accaaagtgt aatgaaaac ggttccactg actgcaaaag aggaaagggg 300
 gatgggagcg ctcatagcta ccaacacaac agaaaatagc accagagagg aagttaatga 360
 gagacagtcc catccagcta cgcagcagca gctgggcaaa accttgcaaa gtaagcagct 420
 cccccaggtt ccaaggcccc ttcagctctt ttcagctaag gagctgaggg actccagcat 480
 tgacacacac caataccacg aaggactaag taaagcaacc caagatcaga tccttcagac 540
 tctcattcag agggttcgga ggcagaatct tctctcagtt gtgccgcctc acagttcaac 600
 ttcgctcact caggtttcca gctggaagac atctccacaa gccagaggtt catgctgggt 660
 tttgctggca gaaggacatc caaacctgca atggcagggc actacttact gaatatttct 720
 acctacggcc ggggctcana gagctttagg aggaccatt ctgtaaacc tggaatcgg 780
 tttgnctaac agccccactg aagccttgaa aatgggatat acngactg 828

<210> 3833

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3833

actgttccgc gggcacccgc agcgcagcgt ctccgatagt aagtcgggct gccggccggc 60
 tcattcccc agggttaactc tgagcccccg gctccgagct cctcagaggc cgcctaccgg 120
 cgtcgggaac atggatgaga aatccaacaa gctgctgcta gctttggtga tgctcttct 180
 atttgccgtg atcgctcctc aatacgtgtg ccccggcaca gaatgccagc tctccgcct 240
 gcaggcggtc agctcccccg tgccggaccc gtaccgctcg gaggatgaga gctccgccag 300
 gtctgtgccc cgctacaatt tcacccgcgg cgacctctg cgcaaggtag acttcgacat 360
 caagggcgat gacctgatcg tgttcctgca catccagaag accgggggca ccactttcgg 420
 ccgccacttg gtgcgtaaca tccagctgga gcagccgtgc gagtgccgcg tgggtcagaa 480
 gaaatgcact tgccaccggc cgggtaagcg ggaaacctgg ctcttctcca ggttctccac 540

gggctggagc tgcgggttgc acgccgactg gaccgagctc accagctgtg tgccctccgt 600
 ggtggacggc aagcgcgacg ccaggctgag accgtccagg aacttcacta catcaccatc 660
 cticgagacc agtgtcccgg tacttgagtg aatggaggca tgtncagaga ggggcaacat 720
 ggaaagcatn cctgcatgtc tgcgatggaa ggctcaactt cgaaaanttg ccacttgtac 780
 actggcgata ctggctg 797

<210> 3834

<211> 602

<212> DNA

<213> Homo sapiens

<400> 3834

ataacagcat gaagtgccgt ggaactggaa taggcgtgtc ctctccctcg accctccccc 60
 tccttgtecc tctgtcacc cctcgctcgt tcctccctc cggcgagggc cgcctttata 120
 acaactgctc agagtgcgag ggcgggatag ctgtccaagg tctccccag cactgaggag 180
 ctgcctgct gccctcttgc gcgcgggaag cagcaccaag ttcacggcca acgccttggc 240
 actagggtcc agaatggcta caacagtccc tgatggttgc cgcaatggcc tgaaatccaa 300
 gtactacaga ctttagata aggctgaagc ttggggcatc gacctagaaa cgggtggccac 360
 agncgggggt gtgacctcgg tggccttcat gctcactctc ccgacccctg tctgnaaggt 420
 gcaggactcc aacaggcgaa aaatgctgcc tactcagttt ctcttcctcc tgggtgtgtt 480
 gggcatcttt ggcctcacct tcgncctcat catcgactg gacgggagca cagggccac 540
 acgtttcttc ctctttggga tcctcttttn catctgttc tactgcctgc tgnctcatgc 600
 tg 602

<210> 3835

<211> 869

<212> DNA

<213> Homo sapiens

<400> 3835

tgtttcgaac actaaataga gaagaaattc ctgttaatga tggaatagag ctattgcaga	60
tggttctgaa ctttgataacc aaggatcccc tcatcctgtc ctgcgtcctt actaatgtct	120
ctgcactctt tccatttgtc acctacagac cagagtccct gccccaggtc ttctctaagc	180
tattttcatc tgtcactttt gaaactgttg aagaaagtaa ggcccccaga acccgggcag	240
tgaggaatgt gaggaggcat gcttgttcct ccatcatcaa gatgtgtcgt gactaccccc	300
agcttgtgct gcccattttt gacatgcttt ataaccatgt gaagcaactc ctctccaatg	360
agctactcct gacacaaatg gagaagtgtg ccctcatgga agccctgggt ctcattagca	420
accaatttaa gaactacgag cgtcagaagg tgttcctaga ggagctgatg gcaccagtgg	480
ccagcatctg gctttctcaa gacatgcaca gagtgtgtgc agatgttgat gctttcattg	540
cgtatgtggg tacagatcag aagagctgtg acccaggcct ggaggatccg tgtggcttaa	600
accgtgcacg aatgagcttt tgtgtataca gcattctggg tgtggtgaaa cgaacttgct	660
ggccccactga cctagaagag gccaaagctg ggggatttgt ggtgggttat acatccagtg	720
gaaatccaat cttccgtaac ccctgcacag agcaaaattc tgaaacttct tgacaatttg	780
cttgcgctta taagaacca caatcattat atgcnccaga aatgctacca aaatggcaaa	840
ncctttcacc aaggctntgg atatgcttg	869

<210> 3836

<211> 806

<212> DNA

<213> Homo sapiens

<400> 3836

agtgtcatgg ctgcccacag gtctgcaggc actcggtacg ccgctaacgc ggcgaggtag	60
ctcggtgcgt ctcgcggtac cagtgcgaat catcgggcta tccaggtccg agatcctagt	120
ctcctgtcgg ctctgaggag gatggatcct tctgcggata catgggacct cttctcacct	180
ttaatatcat tatggataaa caggttttac atttatttgg gctttgctgt tagcattagc	240
ctttggattt gtgtccagat tgtcatcaag acgcagggca agaacttaca ggaaaaatct	300
gttccaaaag cagctcagga ttgatgaca aatgggttatg tctcccttca agagaaagac	360

atcttttgtt ctggagtga gattttttat ggttctcaga ctggaacagc aaagggattc 420
gcaacagttc ttgctgaagc agttacatcc ctggatctgc ctgtggccat tattaatcta 480
aaagaatatg atccagatga tcatctgata gaagaggtga ctagtaaaaa tgtctgtgtc 540
ttcctggttg cgacatacac tgacggccta ccaactgaaa gtgcagagtg gttctgcaaa 600
tggttagagg aagcatccat tgattttcga ttggcaaaa cttacctgaa gggtatgaga 660
tatgcggtat ttggcctggg aaattctgcc tatgctagcc acttcaacaa ggttggccaa 720
aaatgttgac aagtggctct ggatgcttgg cgcgcatcgt gtgattnaag cagggggaag 780
gccnactgcg actnggttaa aaacca 806

<210> 3837

<211> 870

<212> DNA

<213> Homo sapiens

<400> 3837

atgctgcaaa tgccgaagtt aaatgaaata cctccgggga gggcaggccg caggagggt 60
cggggggagg gaagatggcc tggacaaaca ggtcctgaag ctgcgaggct ggagtggagg 120
gcgccagggc aggcgggcgg cgccagagct ccatgggaca gctggggaag ctccaggcta 180
cctacacaac ctggcccagg ctggtcacgg tgtccccct ccctgctctg tgccctctcc 240
ttccagaaat ccaccatgga gagtaaggat gaggtcagcg acaccgacag tggcatcatc 300
ctgcagtctg gccccgacag cccggtctcc ccaatgaagg agctgaccca tgcagtgcac 360
aagcagcaga gggccctgga agcgaggctg gaggcctgcc tggaggagct gaggagactc 420
tgccttcggg aagcggagct gacgggcacc ttgccagcgg agtatcccct caaaccaggg 480
gaaaaggccc ccaaggttcg ccgcaggatc ggagcggctt acaaactgga tgactgggcc 540
ttgcacagag aggaccccct aagcagcctg gagcgccagc tggccctgca gctgcagatc 600
acagaggcaa gccgtcggct gtgcctggag gagaacctca gcaggcaggc tcggcggcag 660
cggaagcact tcatgctgca ngaggagaag aactgcagga gcttcagcgc ttgctggctg 720
agcggcggcg caatagcgag ccacctccg gctgctggtc tcccctgggc cnaaaactca 780
atggcttttg atgacagttc cttgtanaat ggctcttctg gaaggaaaag gattccaagt 840

ggccaaaact tcttcagagt ttcagccccc

870

<210> 3838

<211> 843

<212> DNA

<213> Homo sapiens

<400> 3838

acgtctgctc agctccgagg taatggaggc tagggatggg tgctgaagta tcaggctctg 60
gctctagctt tagctctggc actggaactg cgtcggagtc tgggtctgag tctggcagcc 120
cgaagcctgg acaccttttc ttgattctct aggcgggggc tgcctgcgtc caagcagctg 180
gtttgcagcg ttccaacgct gggagggagt tcccttacct ggggtccagt ctgtaaagtt 240
gtcgccgctt tctagggacc ccgccccacc ggctgggact cttccatgca gttgaaactg 300
gttgacaacc attaacctgg gttgcaacta caggtggcac tggaagcaga ctggttccctg 360
gacatgcccc gtggaaggag gggccctagt cggcaacagc taagccgttc agctttacct 420
tctttgcaga ctttggttgg tggaggctgt ggcaatggaa caggcttgag aaacaggaat 480
ggtagtgcta ttggccttcc agtcccacct atcacagcct taatcacccc aggtcctgtt 540
cgtcattgcc aaattcctga cttgcctgtg gatgggagcc tactctttga attccttttt 600
ttcatctacc tgttggttgc tcttttcatt cagtacatca acatttataa aacagtgttg 660
tggtatcctt acaatcatcc tgcttcttgt acatcactga attttcatct cattgattat 720
catctggcag cattcatcac agtgatgctt gcgaagaagc ttgnatggct ctcactcag 780
aagctactaa ggcangtgca gcatcaatga ttactacat gggctctgata tcncttgctt 840
tgg 843

<210> 3839

<211> 794

<212> DNA

<213> Homo sapiens

<400> 3839

taagtttcct	ttgattctac	agtttggggg	ttctcaagca	gttgcggtg	gtccgtattc	60
tgcgcagcac	cgtgatggtt	cgcgttggtg	gaggatggat	ggccttggat	gaatttttag	120
tgaaaaatga	tccctgccga	gcacgaggta	gaactaacat	tgaacttaga	gagaaattca	180
tcctaccaga	gggagcatcc	cagggaatga	cccccttccg	ctcacggggt	cgaaggcca	240
aaccatcttc	ccgggcagct	tcccctactc	gttccagctc	cagtgttagt	cagagtaacc	300
acagctgtac	atccatgcca	tcttctccag	ccaccccagc	cagtgggaacc	aagacttcac	360
ttcagttctc	tcgctgttat	gacaaaccct	ggttggtaaa	cagtaaagct	ggcaccccta	420
tcagggacag	ccattctcct	gacctccagc	tgcccacccc	cgaggttatc	ccatcatcag	480
gtagcaagtt	gaaacgacca	acaccaactt	ttcattctag	tcggacatcc	cttgctggtg	540
ataccagcaa	tagttcttcc	ccggcctcca	caggtgccaa	aactaatcgg	gcaggttaagt	600
acctgccccg	tgacctacaa	gccaggctga	gaatttggn	acaacagcct	atgtggaatg	660
tttacttgct	ccaaggagc	gggtaatgag	agtggcactt	antgtgatgc	ccaaaaagac	720
agacctgcag	atgtcgaagt	gacctttact	tttctgtca	ttacagctag	cttttaagcn	780
ttccttctga	anat					794

<210> 3840

<211> 754

<212> DNA

<213> Homo sapiens

<400> 3840

gacggcaccg	tacacgagct	caccaagcaa	tgccatcctc	ttcctgcagc	agcttttga	60
cttccaggag	acggcaggcg	ccatgctggc	ctcccaagag	accagctctt	cggccaccag	120
ctacagctct	gagttcagca	agcggctgct	aagcacctat	atctgtaaag	tgctgggcaa	180
cctgcagttg	aacttgctga	gcaagtcctt	ggagaagtct	gaactgatcc	agctggtggc	240
agtgcacacg	aagactgctg	agcgtccta	ccgggagcac	attgagcagc	agatccagac	300
ctaccagcgc	agctgggttaa	aggtgactga	ttacatcgca	gagaagaatc	tacctgtgtt	360
ccagccggga	gtcaagctcc	gggacaagga	gcggcagatt	atcaaggagc	gttttaaggg	420

cttcaatgat ggcctcgaag aactgtgcaa aatccagaag gcctgggcta ttccagacac 480
 agagcanagg gacaggattc gccaggccca gaagaccatt gtcaaggaga cctacggggc 540
 ctttctacag aagtttggca acgtgccctt caccaagaac ccggagaagt acatcaagta 600
 cggggtggag caagtgggcg acatgatcga tcgccttttc gacacctctg ctgagcctgc 660
 tgctaaccct gcctggntca acaaactggn gtgtcattgg cagttaacca atgttacttg 720
 cctccgggct ggggtgaacnt gaagtcctct ggga 754

<210> 3841

<211> 794

<212> DNA

<213> Homo sapiens

<400> 3841

gcattccggt accggacgcc gagagcggtt tgtctccgtc tctggagttg taggcgagag 60
 gtgatcatgt ccggtcgcgg gaaacagggc ggcaaagtgc gagcaaaggc caaatcccgc 120
 tcctcccgcg cgggcctgca gttcccgggtg ggccgagtgc acagactgct gcgcaaaggg 180
 aactacgcgg agcgagtggg cgccggggcg ccggtgtacc tggcggcggt gttggagtac 240
 cttacggcgg agatcctgga gctggctggc aacgccgcgc gtgacaaca gaagaccagg 300
 ataattcccc gccacctgca gctcgccatc cgcaacgacg aggagttaa caagctgctg 360
 ggcaaagtga ccatcgctca gggcggcgctc ctgcccaaca tccangccgt gctgctgcca 420
 gtttgtgagc actcaggacc aagtictggg aagataccgt cggatcgagc tgagctcggg 480
 gcaggaagtg tctgcggcca tatttttcaa aaagtggagt aactttccgt cttggaaggg 540
 tggctctgat ggcacnatgt caacttgaga ttcttcctag cctagtagct gctgtgcttn 600
 catgcttttg atatcagata tctttatata gcacttttat gttcataatt tttttttaat 660
 gaaggaaacg ttcaataagt gagtcatgag gtttggaat tcgttcccct gacagtcata 720
 ttgcataaca ttgcaacgcc nttantcgtg ggntaaatat gcttgagctt ttaaagtgat 780
 gtttgtcaag tttc 794

<210> 3842

<211> 766

<212> DNA

<213> Homo sapiens

<400> 3842

```

gcaatcgccg cagccgcccc cgccgtcggc cgccgcaccc caagcgactg cccaaactaa   60
gcctccgtgg ctgggtacgg gagcgctttg gggacaaaaa ttctccctca actgtggtct  120
gcattccttc ggcccgtggg ctgatctggg gcgggaagta ttagcgcttc agttgcgctg  180
cagccgggga ggaaggagga ggccgagcct ggggcggagt ttgggctgac tggggctgga  240
ccgggcaaga cgccgccgct gcccggatgt tgcgatggct gatcggggga ggccgagaac  300
cgcagggact ggccgagaaa tctcctttac agacaatagg tgaagaacaa acccagaatc  360
cctacactga actgctagta ctgaaggctc atcatgatat tgtacgattt ctggtacagt  420
tagatgacta cagatttgca tctgctgggtg atgatggaat tgtagtgtg tggaatgccc  480
agacagggga aaaactttta gaactgaatg gacacactca aaagataaca gctattatta  540
catttccttc cttggaatct tgtgaagaga aaaatcaact catcttgaca gcctctgctg  600
atagaacagt tattgtgtgg gatggtgata ctaccagaca agttcagaga atatcatgct  660
tccagtctac tgtaaagtgt ttaactgttc ttcagagact anatgtttgg ctttctggtg  720
ggaatgacct gtgtgtgttg gaaccgaaaa attagatntc ccngtg                    766

```

<210> 3843

<211> 811

<212> DNA

<213> Homo sapiens

<400> 3843

```

gcaaagattc tcaacctgaa gctgcgggaa gcagagcagc agcgcgtgaa gcaagcagaa   60
caggagcggc ttcggaagga agaaggccag gtccgcctgc gggccctcta tgctctgcag  120
gaggagatgc tgcagctcag ccagcagctg gatgcctctg agcagcacao agccctgctt  180
aaggtcgacc tggtgcctt ccagaccoga ggcaaccagc tgtgcagcct catctcaggg  240

```

atcatccggg cctcttcaga gagcagctat cccacagcag agagtcaagc tgaggctgag 300
 cgagctctgc gggaaatgcg ggacctcctg atgaacttgg ggcaggagat caccagagcc 360
 tgcgaagaca agaggaggca ggatgaagaa gaggcccagg taaagctgca agaggcacag 420
 atgcagcagg gaccagaggc ccacaaagag cccccagctc ccagccaggg cccaggaggg 480
 aaacagaatg aagacctcca ggtgaaggta caagacatta caatgcagtg gtaccagcag 540
 ctgcaggatg cttccatgca ntgtgtgttg acctttgagg gcctgaccaa cagcaaggac 600
 agtcaggcca aanagataaa gatggacctc cagaaggctg ctaccatccc agtgagcaaa 660
 tctctacat tgcangctca aaactgaagg anatcttgac aagattcaaa agcctgctct 720
 ctgggaaaan ctgttcaatc tgggtggcgc tctgtgtctt cacacttaac ccacangggc 780
 tggctttgtc atacaaactg gcagnгааат t 811

<210> 3844

<211> 594

<212> DNA

<213> Homo sapiens

<400> 3844

gcaggccggc cccaccctcc tgacggtcac cctggtcctt gaagctgcct ggatatggtc 60
 gccatgcagg aagccgcca gcacctcctc ggcacacacg acttcagcgc cttccagtcc 120
 gctggcagcc cgggtgccgag ccccgatgca acgctgcgcc ggggtctccgt ttccccaggc 180
 caagccagcc ccttggtcac ccccgaggag agcagggtgag gaaggggccc tgggctgttg 240
 ccctgccctc aagtcacgtg ctgatttttag ctccagcacc tccccagtt ttaaggcaag 300
 gcgaggccct caacacacac ctgcggcacc cggccatcag ggtcctgcgg gccttccgag 360
 tgcccagcga cttccacgct cgtcacgcag ccacgtcccg gacctacctg taccgcctgg 420
 ccaactggctg tcaccggcgt gatgagctgc cgggtgtttga acgcaacctg tgctggactc 480
 tcccggcaga gtgagtgtgg ccctgacagc ggggaggggg cgggcaagcc ggcccaacct 540
 cctgacggtc ancctggctc ctgaagctgc ctggatatgg ncgcatgca ngaa 594

<210> 3845

<211> 528

<212> DNA

<213> Homo sapiens

<400> 3845

```

tttttccggt cggcgtggtc ttgcgagtgg agtgtccgct gtgcccgggc ctgcaccatg   60
agcgtccccg ccttcatcga catcagtga gaagatcagg ttagaaaatg gatttctgac  120
tggaatctca ccactgaaaa aaagcacacc cttttaagac tactttatga ggcacttgtg  180
gattgtaaga agagtgatgc tgcttcaaaa gtcattgggtg aattgctcgg aagttacaca  240
gaggacaatg cttcccaggc tcgagttgat gcccacaggt aatgttaaag gttactctga  300
tgagggtttg acagcgatgt agaggtaagc tacaatatta aattaagtaa ctgaaatcat  360
gtttgcaact accagtgatc cagagccatt tgatagtgtg tatttcctgg tgattctaata  420
gtagatacta aaattcaagg ttgatattg gaagaactgt ggattgaata tgaagtagct  480
gcatggcggt tacctggcgg ggggggggtat tgctgggtat gggatnnn                528

```

<210> 3846

<211> 672

<212> DNA

<213> Homo sapiens

<400> 3846

```

aaaaaaaaaa gagtccgtc ctgacgcgcc gcctcccgtg ggctccggcc ggctaagccg   60
cggcgggacaa ctatgctgaa agccaagatc ctcttcgtgg ggccttgcca gaccttgatt  120
ccaaccactg cccggaggag gtagtggagg cgagcccggg gttaatgagc cccgaaggcc  180
caagagtgga aaaactgttt tggccaactt tctgacagaa tcttctgaca tcaactgaata  240
cagcccaacc caaggagtga ggatcctaga atttgagaac ccgcatgtta ccagcaacaa  300
caaaggcacg ggctgtgaat tcgagctatg ggactgtggt ggcgatgcta agtttgagtc  360
ctgctggccg gccctgatga aggatgctca tggagtgggt atcgctcttca atgctgacat  420
cccaagccac cggaaggaaa tggagatgtg gtattcctgc tttgtccaac agccgtcctt  480

```

acaggacaca cagtgtatgc taattgcaca ccacaaacca agctctggag atgataaagg 540
 aagcctgtct ttgtcgccac ccttgaacaa gctgaanctg gtgcactcaa acctggaaga 600
 tgaccctgag gagatccgga tggaattcat aaagtattta aaanngcata atcaactcca 660
 tgtctgagag ca 672

<210> 3847

<211> 636

<212> DNA

<213> Homo sapiens

<400> 3847

aggaatgttg gtgctcccag cacctagcac cgggagactg gagaggtttc caggagagtg 60
 acccgagtag gtccctcct aattctggag ccgtccctcg ggctgcgcag tggagcgccg 120
 aggtggcggg aggctgcggg gagcctgcgc ggccaagcac catctgcagt caggagctcc 180
 cgggcagctt gcagggcgca gtttttga aa gcgggtgctg cgtgcggacc gcgggcctgc 240
 agggatcttt tgccagaaat gagggcatac tggcctgacg taattcactc gtttcccaat 300
 cgcagccgct tctggaagca tgagtgggaa aagcatggga cctgcgccgc ccaggtggat 360
 gcgctcaact ccagaagaa gtactttggc agaagcctgg aactctacag ggagctggac 420
 ctcaacaggt ggggtgcgcc ttcccccggc tgcacttccc agtggggatc tctgctgtcg 480
 cccaagcctg acagctggat ccaggggagt ggggtgtagac ctactgccc tccaagcagc 540
 ttctgcatgt gcactattcg actactgggg atcattcctg angaatgttc tgancctacc 600
 aagcctttcc agatcattcn acatcacgat cacaca 636

<210> 3848

<211> 838

<212> DNA

<213> Homo sapiens

<400> 3848

tttatatgt gtaataactc acgtactctg aagagagctt ggtcaaaca taaaatacat 60
 tgttactaac ttggtttctt ttctgtgtac ttgcaaaaa ttctattttt aattttgttc 120
 atatgttgaa tgtgcccta attggcatct taaagagaat agtaagcatc tattaaccaa 180
 aaaagaactc taatagtaaa ggaaaggga atattgggtg tatgtacca caaaaccccc 240
 aagtccaag ttaatggaat ctctgctttc cctttcagat gctagaaagc cactgtaatg 300
 agttcttgca gtttagcatc cagtctaagc tactgcattg tttaaagggc agcatcaagg 360
 acactttctc caaactggaa ctctcttctt tgcaaatct tgtactttaa aattctacaa 420
 ttctgttaca ttgttggtta aatcacagac tgctcagatc cattttactg cagtagtttc 480
 caagtgtgta acttggcttt agtattttatc agttgccaga aagaaacagg ttgtcatttg 540
 gaagtttttg tgggtatttt ttccatttt tattcctcaa gataaaagca gtaccccaaa 600
 atagaaaatg aaaatttcat gaaacaaaga gaactccctt gttaaaacca gcttattaac 660
 tccgtantct gtcaaatgca tttttttcca acaactgacc atggatgttg tgaaggngca 720
 ttttaattta aacatgggaa aagatttttt canaattaca tactaagaat gtaaaattaa 780
 naattttgcc aaggacttaa agagcacagt tgataatccc aaagggtttg atnccaaa 838

<210> 3849

<211> 716

<212> DNA

<213> Homo sapiens

<400> 3849

agtcagaggt taacggaaaa cggaagctgg ctggctgaga agaagcttcc gtagtccta 60
 ccttgaagag aaaagagcca gataaagaga aagattaaaa gtatgagaaa atacagaagc 120
 cactggtctc agggagacag agaaggatac caaagaagaa gtaactatta tgaggggcca 180
 cacaccagcc actcaagccc tgcggaccgg acacgtgagg aggtagtgac gccgacactg 240
 ccagaacaca ctgctacaag gtcccagatg gccacgtctc tggattttta aacttatgta 300
 gatcaggcat gtagagctgc tgaggagttt gtcaatattt actatgagac aatggataaa 360
 agaagacggg cactaaccag gctgtatctg gacaaggcca ccttaatatg gaatggaaat 420
 gctgtttcag ggctggatgc cctaaataat ttttttgaca cattgccttc tagtgagttc 480

cagggtcaata tgtagattg ccaaccagtt catgagcaag caactcagtc ccaaactaca 540
gttcttggtg tgaccagtgg aactgtgaag tttgatggaa acaaacaaca tttcttcaac 600
cagaacttcc tgctgactgc tcagtccact cccaacaata ctgtgtggaa gattgcaagt 660
gattgcttcc gttttcaaga atggggccaan tantttaang ggcaaaaagt ccaatc 716

<210> 3850

<211> 588

<212> DNA

<213> Homo sapiens

<400> 3850

ttcttgctca gtataccttc acganttctt gctaagattc caaaatcttt agcttggcat 60
ttgggatttt ctacagtacg aacctgtcc atcacataaa ccttaacgtc actacatgtg 120
cttatgcaaa aggggctgcc tgaatgagtt gcttgagtgt atgtactagt tggataanta 180
cctgtttgcc attgcttgct gtttatatta cctggaatgc catccttttc ttcttgacag 240
ctttagcaca catccctcct cagtaaaaat agtggcttaa gtttcctgag tgcttacgtc 300
tgtgaggcac catgccttta atttccacta ttgcattgaa gcagtggata tngttatcag 360
tcaagccttg aacattagaa tatacacacc caaatatata tacacacctt gtgacacagg 420
tactgttate atcatcttgc atttggagga tttgtccaag atcacatacc tagtaagtag 480
cacgagtggg nctctgtctc atgtaattcc agagcccagg tgcttaagtc atactcnagt 540
gccatagcac ttacagctaa cacttactag angaccagtt acatgtca 588

<210> 3851

<211> 850

<212> DNA

<213> Homo sapiens

<400> 3851

ttcccttagg ccgatgcgtg gagaccattg tttctgccat caaggaaaac ttccaattca 60

agaaggatgg acactgcttg aaagaaatct accttgtgga tgtatctgag aagactgttg 120
 aggcctttgc agatgctgtt ggtgaaagag ggtgtgcaga atgctaagac cgatgttggt 180
 gtcaactccg ticccttgga tctcgtgctt agtagagggc ctctttctaa gtccctcttg 240
 gaaaaagctg gaccagagct ccaggaggaa ttggacacag ttggacaagg ggtggctgtc 300
 agcatgggca cagtgtctaa aaccagcagc tggaatctgg actgtcgcta tgtgcttcac 360
 gtggtagctc cggagtggag aaatggtagc acatcttcac tcaagataat ggaagacata 420
 atcagagaat gtatggagat cactgagagc ttgtccttaa aatcaattgc atttcagca 480
 ataggaacag gaaacttggg atttcctaaa aacatattcg ctgaattaat catttcagag 540
 gtgttcaaat ttagtagcaa gaatcagctg aaaactttac aagaggttca ctttctgctg 600
 cacccgagtg atcatganaa tattcaggca ttttcagatg aatttgccaa aagggctaata 660
 ggaaatctcc gtcaagtac aaaattccga agggctaaag atacacaang gtttttaagg 720
 ggactgtttc caanccctga ttcaagggtg gtatgaaatg gaagattggg tccatcatct 780
 tccaagtggg cttccggaga attcacnaan aggggaaggg aaatgtgatt gtaaattcaa 840
 catcaanact 850

<210> 3852

<211> 627

<212> DNA

<213> Homo sapiens

<400> 3852

agacgggctg caagagggag ccggcccgac gcggaccgt tccctgcagt gccccgagtc 60
 ccgggccccg gccgcccg ccggctccg ctgcggccc ctctgtctgc aggcgtgccc 120
 cggcggcggc ggagagccgt cctcgccga ggaggctggg aaacgcgagc gcaggcggca 180
 gagaggcctc aacgccgtcc ctttcgccac cgccttttc ttgcctcgcg ccgctgtgca 240
 tttctctcct tttcctttgt ttttttgcc cctcgcggt gtgggcattg ttggttagca 300
 aaagtgcagc ctcaagatgg ctgatggcaa cgaggatctg cgggctgacg acttgcctgg 360
 gccagccttc nagagctatg agtccatgga gcttgccctgc cccgctgagc gcancggcca 420
 cgtanccgtc agcgacgggc gccacatgtt cgtctggggc ggctacaaca gtaatcaagt 480

cagaggatta tatgactttt atctgcctan agaagaacta tggatctaca acatggagan 540
 tggaagatgg aaaaaaatca aactgantg tgatgttcct ctttctatgt catgaagctg 600
 tgctgtgtgt gtanacaggt gctgtac 627

<210> 3853

<211> 772

<212> DNA

<213> Homo sapiens

<400> 3853

attaatccca atataaggtt ataatatatt tctttacatt ctttttttag taagaaaaat 60
 gtagttttga accatcatat aatactagaa ctaattagga gaaatttaaa tcctctttgc 120
 tttatataag tatagtatat atttatttag cagaataaat gtttatgggt gaaaatggct 180
 gggattatag ttgtgagcca ttgtgcctgg cctattttca gtatttttgt ttaaattttg 240
 taaaaaggta aaataaatga tttttgaaaa tagctggagt tgttttcata gagtctgtgg 300
 ttataggact atttaactat atattgagta aaatctatgc tatgtcaagt tttattcagt 360
 tgtccctagt agaatatatt tctcttttaa ttctgtatac agtatgagta actccagttt 420
 aaaacactgg tattttaatg agtttaaatt gtactgttat atattatgat acatattttt 480
 cttctggctg tggtttagtt tttaaaattt ttgatgtcca ttttaatttt tagaaataaa 540
 agcttaaaaa tatgggtgga agtagatttc agtttgatga ttatcttggc gaaagtatag 600
 tacctgtgaa atgggtggtaa taatttgatt ctttattcta ttttgattgt agtcctttt 660
 gtaagggagc atttgtaaaa ttttaagttgc ttttagagta tacaaaatcc ttttattacc 720
 atttattaac cngtttggtg gttttaggga cctggatccc aancctttga ag 772

<210> 3854

<211> 729

<212> DNA

<213> Homo sapiens

<400> 3854

ttctttcttt cattccttcc ttcctctgtt tctttcttcc ttcctttcat tttttttct	60
tttttaagag cgagcggctc tgcggtggcg gtttggggtg ggcgccgccg aggtgaggtc	120
gtctcgcctc ccgcgcgccg gtagattggt tgtttcatta tggatggagg ggatgatggt	180
aaccttatta tcaaaaagag gtttgtgtct gaggcagaac tagatgaacg gcgcaaaagg	240
aggcaagaag aatgggagaa agttcgaaaa cctgaagatc canaagaatg tccagaggag	300
gtttatgacc ctcgatctct atatgaaagg ctacaggaac agaaggacag gaagcagcag	360
gagtacnagg aacagttcaa attcaaaaac atggtaagag gcttagatga agatgagacc	420
aacttccttg atgaggtttc tcgacagcan gaactaatag aaaagcaacg aagagaanaa	480
gaactgaaag aactgaaggg aatacaagaa ataacctcaa gaaggttgga atttctcaag	540
agaacaagaa ggaanttgga aaagaaactg actgtgaagc ctatagaaac caagancaag	600
ttctcccagg cgaagctgtt ggcaggagct gtgaagcata agagctcaga gagtggcaac	660
agtgtgaaaa gactgaaacc gggaccctga gccangatga cangaatcag gagccctcaa	720
cntgcaaag	729

<210> 3855

<211> 277

<212> DNA

<213> Homo sapiens

<400> 3855

acttaancgg gatggaacgg aacgggaggc cccggctggt gggcaggctc cctgctgctg	60
atacaggaag ggacaaaggg ctcgacgat tccggtcttt ccttagctgc tctccttgca	120
agctctttca tccccatggg tctcttgatg agtccaacaa gacgggcatg gagcccgatc	180
tcacagatgg ggaagctgat gccagcggca gcttccccca gcacagaaga nagctcctgg	240
nattccagca aggggtgact ggaacnaaaa ccaggga	277

<210> 3856

<211> 712

<212> DNA

<213> Homo sapiens

<400> 3856

```

gtaagtatgc acggatgaag atggaactaa gccgagtaag aagacataca aaagcctctt   60
ctgaaggaaa agacagtgtg gtcctgcaaa acattttgag gtacattggt ttgtctcagc  120
tattttgtag cagactcgtg cccccattag tgtgcctctt tggaaattat cgccacatt  180
tgtaatatag tcgccattga aaagttaatt atcctttttt tagggatttt gatgtcattt  240
cttttttttt ttttaataaaa aggttgaact gttttttttt tttttctttt tgggtattaag  300
tccatcttgt gttggtacat tggcagagac atatgcttta aaaacttaaa tatttcggag  360
gcacatgttg gactactttg ttttaattaa actgctagta tttctttgtc aaggatgttt  420
ctagtttttt gctttattgc cttgcattct aatgcagttt gttctgtaac tcgagagcca  480
gtagcattgg attgatggaa agtgtanggt ttatgaatta ttgcaagctg actaccatac  540
ctcacacagc gttggtgttg tgaagcggcc catgaaaagc caaattaaaa atcaaggatt  600
cagtcaaact aagcaggtac tcaagccaag tactcctttc nnaacccaaa tccaangttt  660
ggaaatggcc aaattggccc tggtgaaatc cttaaccgc cctttaaaac cc           712

```

<210> 3857

<211> 721

<212> DNA

<213> Homo sapiens

<400> 3857

```

ttagtaattg tttataaat ttgggaagct ccagtcttag gtgcataaat gtttaggatt   60
gtgatatttt cctgttgcca aggctggagt gcagtggcac gatctcagct cactgcaacc  120
tccatctccc aggttcaagc gattctcctg cctcagcctc cccgagtagc tgggaattaca  180
ggcgtgggcc accacgcca gctaattttt tttttattt ttagtgaga tggggtttca  240
ccatggtggc cagactgatc tcgaactcct gacctcaaat gatccacctg cctcagcctc  300
ccaaagtgtc gggattacag gcatgggcca ctgtgtccag ccaaataaag tcagttttta  360

```

tgaacatagg ttcatgggtg gccataggtt aagtttttat acagttggta ttaatcaaca 420
 ggaaattata atgcaaactg catatactct taaaaacttt tctggaactg agtggatctt 480
 gaaaataaaa atgattgtta agatatttca aaggattatt gtaaatttcc aaattctgtt 540
 ttttaattct ttacttttaa tcataaagta taccatctat ttgaaaacag gtataccaca 600
 atgtacctac ttcatagngt tgctatataa tgcgaagaac aatgcttaac acatcgtaag 660
 tatgcgatta aatgtcacca ntgcccttga nttgggttaag caccttttaa ggcacaccca 720
 n 721

<210> 3858

<211> 746

<212> DNA

<213> Homo sapiens

<400> 3858

attttacata acccaggga aactagcatg ctttgttctc aggctccctg ccatgggtcaa 60
 aagcacccca aatctgaaaa gattcttgggt aatttatcc ctttcatccc taaagaggag 120
 cctttaagat atgtcagggt tgatcttttt ttcagaacct aatgtgtaga tattcagaaa 180
 tgactctgga agacaaaaat ttggattgtc agaaggaggc tgctcatata attaatgcca 240
 tgtaagtaat tgctttgttt ttaaaaagcc catcgagtgt aaatgttaaa tgtatttgtc 300
 tttaaaaatc tattagcact aaactgactg catcgagtat cctagaattc acttaagtct 360
 tgccaagaaa ttaaggagct tcaggaactt ggtgttccaa agccctttac cccagggtgg 420
 agcaaattga aatcatgaaa gtttaaacca ctgcacagct tacagatctg cagggtagct 480
 ctgcagttgc cttgcaagga tatagagaag ttaatatctc aaatatttag taacatttat 540
 gctaattgagc ctcccataat aaccataaat ggctttcaca tgttgtttgt tfaatgtgaa 600
 ctggcagagt atctattgac aagaaaacat tgtggagtcc tgagacaatt gaaaataagc 660
 cgaaattcac tttcctgaaa tatacattcc ttcacataag aactaaacan tgtattcccc 720
 aaagaaacat aattanttcc cngatc 746

<210> 3859

<211> 767

<212> DNA

<213> Homo sapiens

<400> 3859

```
attgcaaact tgggacaagc aagccaaatt gtcccgggca tatgatggta ccacttacct 60
gccgggtatt gtgggactga ataacataaa ggccaatgat tatgccaacg ctgtccttca 120
ggctctatct aatgttcctc ctctccggaa ctactttctg gaagaagaca attataagaa 180
catcaaacgt cctccagggg atatcatgtt cttgttggtc cagcgttttg gagagctgat 240
gagaaagctc tggaaccctc gaaatttcag ggcacatgtg tctcccatg agatgcttca 300
ggcagttgta ctttgcagta agaagacttt tcagatcacc aaacaaggag atggcggtga 360
ctttctgtct tggtttctga atgctctgca ctgagctctg gggggcacia agaagaaaaa 420
gaagactatt gtgactgatg ttttccaggg gtccatgagg atcttcacta aaaagcttcc 480
ccatcctgat ctgccagcag aagaaaaaga gcagttgctc cataatgacg agtaccagga 540
gacaatggtg gagtccactt ttatgtacct gacgctggac cticctactg cccccctcta 600
caaggacgag aaggagcagc tcatcattcc ccaagtgcc a ctcttcaaca tcctggctaa 660
gttcaatggc atcactgana aggaatataa gacttacaag gagaactttc tgaagcgctt 720
ccagcttanc aaagttgcct ccatatccaa ncctttgtat caagaga 767
```

<210> 3860

<211> 782

<212> DNA

<213> Homo sapiens

<400> 3860

```
ataaatgatg cttaattctt tgtctacaga ttgtctctct ctgaacacta tagtcgtcga 60
atctcacaag cgtacggtct gatgaatgaa ctgttatctg agtcagtaca gctaccaact 120
ctaccacaga aaccattgcc taacaaaccc agccctactc agtcttccag ttgtcaacac 180
tgcccttctc caagaggaga gaatcaacat ggtcacagtt ttctaataaa tcgacctgga 240
```


aaagtcaaat atatgtccaa accgagttat atccataaga ggaagtcttt tgggcaacct 300
 caaggctcac cttggccaca tggaactgcc actttcacca tacagaaaaa agctggtgga 360
 gccaaagcag cagtaagaaa ggctacgcag tctccagtta ccttccaaaa aggctctaata 420
 gctccgtgtc atagtctgca gcatacaaaa aaacatggaa gtgctgggct tgcacctcaa 480
 accaagcagg tgtgtgtaga gtatgaaaga gaggagactg tggtagagtc ctggacgata 540
 ccttcagaaa tccataagat tcttcatgag agtcacaatt cccttctaca agacttgtct 600
 ccaactgaag aggaagagcc agagcatcct tttggggtgg gcggtgtgga cagcgtgtct 660
 gagagcactg gcagcatcct cagcaagctg gactggaatg ccatcgaagg acatggtggg 720
 ccagcgtgga ngaccanggg cctgtctgtc cacnggggcc ctgggacctg taagaacctg 780
 gg 782

<210> 3861

<211> 810

<212> DNA

<213> Homo sapiens

<400> 3861

taaatatgga tatgaacagt attaaagagc cacagtcaag actaaggaag tggacgacag 60
 tggacagcat ttctgtgaac acatctttgg atcaaaactc cagcaaacat ggtgctatatt 120
 caagtgggtt caggctggaa gagtctccat ttgttccta tgactttatg aacagcagta 180
 cttcaccagc cagtcctcca ggttcaatag gagatggctg gccacgtgcc aaatcgcta 240
 acggctctag cagtgttaat tggccaccag aatttcgtcc tggtagacca tggaaagggt 300
 atccaaacat tgacctgaa actgaccctt acgtcactcc tggcagtgtc ataaacaatc 360
 tttcaattaa tactgtgagg gaagttgacc acctcaggga caggaacagt gggtcacatc 420
 catccttgaa caccacgtg ctttcaacta gtgcctgggtc atccattcgt gcctccaact 480
 acaacgttcc cctcagcagt acagcacaaa gcacttcagc cagaaatagt gattccaaat 540
 tgacatgggt tcctgggttc agttacaaac acctctctgg ctcatgagct gtggaagggt 600
 cctttgccac ctaaaaacat cactgctccg tcccgccac ctccgggact gactgggtca 660
 gaagccancc ttgtctacgt gggataattc tccccttcgt anaggtggag ggatggggga 720

aattctgacg ccagatatac cccaagttcc agctggggtg agaagcagct caaggagaat 780
aacaaattgg gcttggttcc naaaaaannag 810

<210> 3862

<211> 706

<212> DNA

<213> Homo sapiens

<400> 3862

gaagacagat ttctgatat aatgacttgt catcacagat cttgtgtgga ttgcttacga 60
caatatttaa ggatagaaat ctctgaaagc agagttaata ttagttgccc agaattgact 120
gaacggttta atcccatga tattcgcttg atattaagtg atgatgtctt gatggaaaaa 180
tacgaagaat ttatgcttag acggtggctt gttgcagatc ctgattgtag gtggtgtcca 240
gctccggact gtggatatgc tgtgatagca tttggatgtg ccagctgtcc aaaattaact 300
tgtgggcgag agggctgtgg aacagagttt tgctaccact gtaaacagat ttggcacccc 360
aaccagacct gtgatgctgc tcgacaagag agagcccaga gcttacgttt gagaactata 420
cgctcttcat ccattagtta tagtcaagag tctggagcag cagctgatga tataaagcca 480
tgtccacgat gtgctgctta tataataaag atgaatgatg ggagctgcaa tcacatgaca 540
tgtgctgttt gtggttgtga gttttgttgg ntgtgtatga aagaaatctc aaatttgcac 600
taactaantc catcangatg tacttttggg ggaagaaaac ctggagccga aagaagaaat 660
attgtggcaa ctggggaaca ctgggttgnn gctcctgtcg gaatcc 706

<210> 3863

<211> 719

<212> DNA

<213> Homo sapiens

<400> 3863

aaaaagccgg cttccggaag ccgggacgat gtccgcatga caaccgacgt tggagtttgg 60

aggtgcttgc cttagagcaa gggaaacagc tctcattcaa aggaactaga agcctctccc 120
 tcagtggtag ggagacagcc aggagcgggtt ttctgggaac tgtgggatgt gcccttgggg 180
 gcccagaaaa acagaaggaa gatgctcctg ctgctgtcct atgacctctt tgtcaattcc 240
 ttctcagaac tgctccaaaa gactcctgtc atccagcttg tgctcttcat catccaggat 300
 attgcagtcc tcttcaacat catcatcatt ttctcatgt tcttcaacac cttcgtcttc 360
 caggctggcc tggtaacct cctattccat aagttcaaag ggaccatcat cctgacagct 420
 gtgtactttg cctcagcat ctcccttcat gtctgggtca tggtaagagt ggcagtctga 480
 attctttttt taatttttat tttaaataga ggtggggctt tactttgtta ccaaggctgg 540
 tctcaaactc ctgagctcaa gcaattctcc tgcttctgcc tcccaagctc aagcaattct 600
 cctgcttctg cctcccaaag tgctggaata caggcatgag tcactgtgcc ccggcctgaa 660
 ctctgaattc ctgaatcgct aaagggctag gaataacttt ncttttcttt nctttcttt 719

<210> 3864

<211> 805

<212> DNA

<213> Homo sapiens

<400> 3864

aaagattcaa gttttataaa aattttataaa aacattttct gtattatttt gctgcatgtg 60
 aaactttccc ttataattta acaaaagatt tcattcacat tggcaattgt tcattaataa 120
 ccaaaacaat aagtaacctt atttcgcaag acctaagaaa attggcacta ggttctttta 180
 tacattttta ctgtactgga ctacagcgta agtttcagaa attttacttc tattttttga 240
 aggtacatag tgtaactgct taagatcaat ttggatttca ttttcatcgt aaaaatgtct 300
 tgataaattc catacactgt agaataagcc tttcactaag gctggcatca acataaatgc 360
 agttattgca tatctggcaa aaagagggtca ttaacagaaa aaaatgacta gccattcaat 420
 gagacaaata aaaatacaaa aagttataat ctcatgtgtt aacacattat ttactatgaa 480
 cagaaatttc ttattagccc tcaacactgt catctggtta tggctccaga cagtactttc 540
 acgtaatatg ggcatattaa ctaatttttc caatcacttg ttcaaaaactt ggtcttaaga 600
 aagcaaatca tgcttgagg agaaaaaaga agctaaaang taaatangga atgaattaaa 660

aactagacta tggatgctg aatgagaaat atagtaagta tatttaatca taacctgata 720
 attacnttaa tggggccacg aaaataatgg atttactaca tttccttgaa gaaaatattt 780
 caatncctaa ggaancctaa ccttt 805

<210> 3865

<211> 781

<212> DNA

<213> Homo sapiens

<400> 3865

aaagagcttt ttctttctca aataagaacc tgtaacctc taaatccact tatcttcaat 60
 agcgccttag ggaggtgatg gagagagttc tggctggggc accttccttg ctccccctga 120
 gtagcactaa gtaatctcac aggacaggca aggcctttct gaagaggtct tagagtgcag 180
 ggaattgcat gacaggtgct gttagccacc ttggaagaac tgcaggcctt gcgtggtgcc 240
 accttgtttg cgggaagccc agccctgtcc attcccctgg ccctagcatc tgtttatcta 300
 atagcagtac caatTTTTat tgttaggata agttgtagga gaaattagca aaggTTaact 360
 gactgctgtg ggtagacagt acaattcttc ttcagtttct gacttaggag tgtttccgaa 420
 aagTTaagtG aaaacaaaag tttgaagtgt ttccctttta gttacataac agacactcat 480
 tacggaattg aacagtttta gaccataaa taattaagtt aaaagcataa caaatcctg 540
 ttaggaaact gatgaaaaat ttgtttctaa aacactttag attttaaact tgaacacgta 600
 gtgaaatgtc ttttaaaca atgaagatgg gtgcagtgtt cacaggcctc tccactaagc 660
 agatgtctac tgagaacaca gtattanggg atgtgggtgg gaanaaagat gcaatgggca 720
 aagcctcaac ctgggcgaac tggggcaagc tcgctctctc aaggcaacaa gtnaaggaaa 780
 g 781

<210> 3866

<211> 674

<212> DNA

<213> Homo sapiens

<400> 3866

```

gagcgcggcc cctgggttcg aacacggcac ccgactgcg cgtcatgggtg ctggcctggt 60
atatggacga cgccccgggc gacccgcggc aacccaccg ccccgacccc ggccgcccان 120
tgggcctgga gcanctgcgg cggctcgggg tgctctactg gaagctggat gctgacaaat 180
atgagaatga tccagaatta gaaaagatcc gaagagagag gaactactcc tggatggaca 240
tcataaccat atgcaaagat aaactaccaa attatgaaga aaagattaag atgttctacg 300
aggagcattt gcacttggac gatgagatcc gctacatcct ggatggcagt ggggtacttcg 360
acgtgaggga caaggaggac cagtggatcc ggatcttcat ggagaaggga gacatgggtga 420
cgctccccgc ggggatctat caccgcttca cggtggaaga gaagaactac acgaaggcca 480
tgcggctgtt tgtgggagaa ccggtgtgga cagcgtacaa ccggnccgct gaccattttg 540
aagcccgcgg gcagtacgtg aaatttctgg cacagaccgc ctancantgc tgcctgggaa 600
ctaacacgtg cctcgtaaag gtccccaatg taatgactga gcagaaaatc aatcactttc 660
nctttgcitt taaa 674

```

<210> 3867

<211> 670

<212> DNA

<213> Homo sapiens

<400> 3867

```

agtgcgcctg cgcggagctc gtggccgcgc ctgctccgc cgggggctcc ttgctcggcc 60
gggccgcggc catgggagag gccgaggtgg gcggcggggg cgccgcaggc gacaagggcc 120
cgggggaggc ggccaccagc ccggcggagg agacagtggg gtggagcccc gaggtggagg 180
tgtgcctctt ccacgccatg ctgggccaca agcccgtcgg tgtgaaccga cacttccaca 240
tgatttgtat tcgggacaag ttccagccaga acatcgggcg gcaggtccca tccaaggtca 300
tctgggacca tctgagcacc atgtacgaca tgcaggcgct gcatgagtct gagattcttc 360
cattcccgaa tccagagagg aacttcgtcc ttccagaaga gatcattcag gaggtccgag 420
aagggaaagt gatgatagaa naggagatga aagaggagat gaaggaagac gtggaccccc 480

```

acaatggggc tgacgatgtt ttttcatctt cagggaagtt tggggaaagc atcagaaaat 540
 tccagcaaag acaaagagaa gaactcctca gacttggggt gcaaagaagg ccanacaaac 600
 ggaagcgcaa ccgggggtcac cnacaaagtc ctgaccgcaa acagcaaccc ttcaattcca 660
 ntgctgccaa 670

<210> 3868

<211> 711

<212> DNA

<213> Homo sapiens

<400> 3868

gaaaatgctt gtgtcgcctt tgggtgggcca tgtcctaatt agtttcatct gcttccttgg 60
 gaacttacta aggggcccag agcactgttg gaagtctggt tagagtcccc agagagttac 120
 tctaagttaa aatgagccac tgaccttggc tcaccttaga ggaatttcct cgagaacaac 180
 agagataaga aaagaaccag cctggccaat ccttcaacag ctctagagcc ccttttctct 240
 gctggcaggg gctttgttta ccagctcact gtttaggcta aatgttaggg accagatcac 300
 tgcagttgaa aacaggcact ccaggcttag tgacagtggc agcagaaaca gtgttggctg 360
 cctttctgac caccctactt tcttgccctg agacagcacc ccagggcagg tgcttcatat 420
 tcagaccagg taagcctcat ttgcacaaca gtcaaattgt ttgttccttt aaaaaggaca 480
 caattagcct ggcacggtga ctcatgcttg taatcccagc actttgggag ggcaaggcaa 540
 gcggatcacc tgaggtcagg agtttgagac cagcctcacc aacatggnaa aaccccatct 600
 ctactaaaaa aatacaanat taaccagggg tgatggcaca ttctgtaat cccagctact 660
 cggaagccg aggcaagaga atcgcttgaa cccggggaag gaaaaggntn a 711

<210> 3869

<211> 711

<212> DNA

<213> Homo sapiens

<400> 3869

```

gactggcgag ccatggcgct ggggctgcag cgcgcaaggt cgaccacgga gctgcgcaag 60
gaaaagtccc gggatgcggc ccgcagccgg cgagccagg agaccgaggt gctgtaccag 120
ctggctcaca cgctgccctt cgcccgcggc gtcagcgccc acctggacaa ggcctctatc 180
atgcgcctca ccatcagcta cctgcgcatg caccgcctct gcgccgcagg ggagtggaaac 240
caggtgggag cagggggaga accactggat gcctgctacc tgaaggccct ggagggcttc 300
gtcatggtgc tcaccgccga gggagacatg gcttacctgt cggagaatgt cagcaaacac 360
ctgggcctca gtcagctgga gtcattgga cacagcatct ttgatttcat ccaccctgt 420
gaccaagagg agcttcagga cgccctgacc cccagcaga ccctgtccag gaggaagggtg 480
gaggccccc cggagcgggtg cttctccttg cgcatgaaga gtacgctcac caagccgcgg 540
gcgcaccctc aacctcaagg cggccacctg gaaagtgtg aactgctctg gacatatgag 600
ggcctacaag ccacctgtgc aaacttctcc anctgggaac cctgactcaa angccccgc 660
tgcaattgcc tgggtgctcat cttgcgaaag ccatcccca acccaangca a 711

```

<210> 3870

<211> 624

<212> DNA

<213> Homo sapiens

<400> 3870

```

aaacatgggg cggggcggcg cggccgggga agcgtgatga aggcctacga gtgcggcgcg 60
gcctgaaggg gcacgcgggg gacctgcaaa gctagtgagg ggcggggcag gcggcgcggt 120
gggggcgggc cgagcccga ggccagatgt gcggacacag cccacgcgc ggggccatgc 180
aggtggccat gaacggtaag gcccgaag aggcggtgca gactgcggct aaggaactcc 240
tcaagttcgt gaaccggagt ccctctcctt tccatgctgt ggctgaatgc cgcaaccgcc 300
ttctccaggc tggcttcagt gaactcaagg agactgagaa atggaatatt aagcccaga 360
gcaagtactt catgaccagg aactcctcca ccatcatagc ttttgctgta gggggccagt 420
acgttcttgg caatggcttc agcctcatcg gggccacac ggacagcccc tgcctccggg 480
tgaaacgtcg gtctcgccgc agccaagggt ggcttcagc aagtcngtgt ggagacctat 540

```

ggtaggtggga tctggagcac ctggtttgac cgtgacctga ctctggctgg acgcgtcatt 600
gtcaagtgcc ctacctcang tcng 624

<210> 3871

<211> 699

<212> DNA

<213> Homo sapiens

<400> 3871

ttcattgtac ctcaagggtg tgatgaaatt ttaatgaatt aagttgaata gctcaaaagt 60
atatacttcg taacactcag tttcagttac agtcactgac tgatgtagtt ctgctggcac 120
ctgacagctc tcagttacta agcttctgcg atatgctagg cactgtgctg gatgataaga 180
cagcaccctt gccctctaga agctcgggca gttaaaatgg agcagaggga agcaacggag 240
actcagaaaa taactataca cactaaggga gagcttggtc tggggctggt gaataggaat 300
ctgttaggga agtgacagat gcaaagctgg aaatgttaat cagatggcta aattcaggcc 360
aaaatttaaa tatcttcaat tttcaactca agaaaggcat ttggcagaaa ccatgttttg 420
aaaagaaatt aaaatttaca agaattttta ttaagcactt tgcctagcaa aagatttttg 480
ttaaaaaaaaa aaaaaaaaaac ttgtcatccc tactttcagg gagtagaatc ctggaatttt 540
tgaancatac tgtaagatgg tgattatata tcaaaagggg ttccgtggtg tctgtaccct 600
ctctgccaca ggcaatactg agcaccatag gcttgagtat gccatttaac tgtttggttt 660
tggttcnant tggcacttta tacaatgttt ganaatatc 699

<210> 3872

<211> 653

<212> DNA

<213> Homo sapiens

<400> 3872

aggggatagg acgaagaaac cgaagggaaa gctcagttgc agcggcgact ttcagtttca 60

tttccacgga ccctcctgcc tgggccgcag ccgccgccgc gatgcccagt aagttcagct 120
gcccgcagct ccgggaggcg ggccagtgtt tcgagagttt cctggtcgtt cggggactgg 180
acatggagac agatcgcgag cggctgcgga ccatttataa ccgcgacttc aagatcagct 240
ttgggacccc cggccctggc ttctcctcca tgctgtatgg aatgaagatt gcaaactctgg 300
cctacgtcac caagactcgg gtcaggttct tcagactcga ccgctgggcc gacgtgcggt 360
tcccagaaaa gaggagaatg aagctggggg cagatatcag canacaccac aagtcactgc 420
tagccaagat cttttatgac agggctgagt atcttcatgg gaaacatgg gtggatgtgg 480
aagtccaagg gcccctgaa gcccgagatg ggcagctcct tatccgcctg gatttgaacc 540
gcaaagaggt gctgaccctg angcttcgga atggcggaac ccaatctgtt accctcactc 600
anctcttccc actctgccgg acaccccagt ttgctttcta caatgaaana cca 653

<210> 3873

<211> 632

<212> DNA

<213> Homo sapiens

<400> 3873

ggttggctct gagtccttc caaaagatga attaaatgat ctgatcgacc gagccttcag 60
cagattccgt cacagagaag tggccatct gtccagggtg aggaatgggc tgaacgtgtt 120
ggagctgtgg catggcgta catatgcatt taaggacctg tccctgtcct gcacaacaca 180
gttcctgcag tacttcctgg agaagaggga gaagcacgtc actgtggttg taggaacatc 240
tggggacaca ggaagtgtg ccattgagag tgttcaagg gcaaagaaca tggacattat 300
cgttctgtg cccaaaggtc actgcacaaa gattcaggag ctccagatga caacggtgct 360
gaagcagaac gtacatgtgt ttggagtga gggaaacagc gatgagctcg atgagccgat 420
caagactgtg ttgcccgat tggcttttgt caagatangc ctgcccattc gtctggctgt 480
ggcagtgaac cgcaatgaca tcatccacag gactgtccan caggagact tctctctctc 540
tgaggctgtt aaatcaacct tggnatcagc tatgggcatt caagtgccct acaacatgga 600
naaggtgttc tggctgtct ctgntctga ca 632

<210> 3874

<211> 733

<212> DNA

<213> Homo sapiens

<400> 3874

```

gtaagtaagc ctgccagaca cactgtgacg gctgcctgaa gctagtgagt cgcggcgccg 60
cgccactggtg gttgggtcag tgccgcgcgc cgatcggtcg ttaccgcgag gcgctggtgg 120
ccttcaggct ggacggcgcg ggtcagccct ggttcgccgg cttctgggtc tttgaacagc 180
cgcgatgtcg atcttcaccc ccaccaacca gatccgccta accaatgtgg ccgtggtacg 240
gatgaagcgt gccgggaagc gcttcgaaat cgcctgctac aaaaacaagg tcgtcggctg 300
gcggagcggc gtggaaaaag acctcgatga agttctgcag acccactcag tgtttgtaaa 360
tgtttctaaa ggtcaggttg ccaaaaagga agatctcatc agtgcgtttg gaacagatga 420
ccaaactgaa atctgtaagc agattttgac taaaggagaa gttcaagtat cagataaaga 480
aagacacaca caactggagc agatgttttag ggacattgca actattgtgg cagacaaatg 540
tgtgaatcct gaaacaaaga gaccatacac cgtgatacct attgagagag ccatgaagga 600
catccactat tcggtgaaaa ccaacaaaga gtacaaaaca gcaagctttg gaagtgataa 660
aagcagttta aaaggagaaa aatgaanatt anaaacgttg ctcaaaatga aggcttccgg 720
ttcaaccttc can 733

```

<210> 3875

<211> 761

<212> DNA

<213> Homo sapiens

<400> 3875

```

gtcgcaactcc ttctccccga gacttggtag tgggagatag gacgggagtc tcctacacgc 60
agtcaacact tgccacgagc ggctagactt aggacaggca agttgccctg ccatccttct 120
atcgccccca cccctccttt acttaagggc gatggcagag acgtcctcct ccccttctc 180

```

ctcctctttg gtgcctccag ccaggaggcg ggagcgatcc acagcagctg acccagctca 240
 ggcactgcct ctctcacagc cctcaagaca caccatgggc ccagaggcag gtttgctaca 300
 cagcagcgac gacgcgggcg gcggccccag cgactcgcaa ctgcctccct gaccacagcg 360
 gccaccgccc aacacccccg agaagccatc gccaccaccg gcaggagAAC ctaggggtcca 420
 taaagccatc ttcgcgatcg actaaagcta cgtcaacaac tatggcgggc gacgggcggc 480
 gggcagaggc ggtgcgggaa ggatgggggtg tgtacgtcac cccagggcc cccatccgag 540
 agggaagggg ccggctcgcc cctcaaaatg gcggcagcag cgatgcgcct gcgtacagaa 600
 ctcctccgtc gcgccagggc cggcgggaa tgaggttctc ggacgaagcc gccagaagtg 660
 tacggggact tcgagcccct ggtggncaaa gaaaggtccc cgggtggggaa aacgaacccg 720
 gctagaaaaa gttccggtcc ganttctgcg aaaagaggaa n 761

<210> 3876

<211> 747

<212> DNA

<213> Homo sapiens

<400> 3876

ttttatttat tgctgtggaa ggcttctctt ttgaagctga tttgggaagg aagccaccag 60
 ctatcccaat aaggactat gccataatgg tgacatgtt cttcaccgtg agcgtggtga 120
 acaactatgc cctgaatctc aacattgcca tgcccctgca tatgatattt agatccggtt 180
 ctctaattgc caacatgatt ctaggaatta tcattttgaa gaaaagatac agtatattca 240
 aatatacttc cattgccctg gtgtctgtgg ggatatttat ttgcactttt atgtcagcaa 300
 agcaggtgac ttcccagtc agcttgagtg agaatgatgg attccaggca tttgtgtggt 360
 gggttactagg tattggggca ttgacttttg ctcttctgat gtcagcaagg atggggatat 420
 tccaagagac tctctacaaa cgatttggga aacactccaa ggaggctttg tttataatc 480
 acgcccttcc acttccgggt ttcgtcttct tggttctga tatttatgac catgcagttc 540
 tattcaataa gtctgagtta tatgaaattc ccgtcatcgg agtgaccctg cccatcatgt 600
 gggttctacct cctcatgaac atcatcactc aagactccta ctttaactggg gagagaaatg 660
 tctattaaat gtctctctc tttctctggg tcaaagacca tgtaatttta tgcttcagan 720

atnaagatac ggtttgntta caaagag

747

<210> 3877

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3877

gataaatgcc ccatatatat aaaagtgaac acaatactgt accaatgagg aagagagttt 60
 tgtaaaagca agcaggctgg ctgtcattaa aagttatctt aaataacttg tcgcagccca 120
 ctcccaccag tcctgaaaat agttcattca agtggtaaaa taagacaagg cagaggacga 180
 tgtctctaac ttccctgatg tgagatctaa agccccattc ctaactcttg gttttagaat 240
 tgaggaaagt ggaataaatg catttggaac ggatctgttt tcttcccagg tttcctgcct 300
 gggttgaaaa taaggtttca ggggatggaa gcaactttga ggaacataaa gaggtatttg 360
 gggtcatcaa ttcattcttg tttcaagatg gtccccccc accctccaca atgcaagtta 420
 attaggagat aatttagcta ctttgtgaat tagttttaag ataagtatct ttttaagctt 480
 tgtcacttta attgccccac tgattgataa gaagtagtta tttctaattg acactttttt 540
 gatgtccatt ggaagcattt atttggaact ttttgggggt ggaaggaaag ttaattaatt 600
 ttatcaagtc tacccecaaa aggactctgc ctaattttgt tgaanaagac aaaggaagtg 660
 aaggaaacca aataaaaaat caatctcaag ggattttaat tantaaaggg acactttggg 720
 nttaaa 726

<210> 3878

<211> 712

<212> DNA

<213> Homo sapiens

<400> 3878

gttcggtgcg cggccggggc cggagttcgc tgcaagtcgg cggaaaagtt ggctgcgcgg 60

gttccccga agttcagagt gaagacattt ccacctggac acctgaccat gtgcctgccc 120
 tgagcagcga ggcccaccag gcatctctgt tgtgggcagc agggccaggt cctggtctgt 180
 ggaccctcgg cagttggcag gctccctctg cagtggggtc tgggcctcgg ccccaccatg 240
 tcgagcctcg gcggtggctc ccaggatgcc ggcggcagta gcagcagcag caccaatggc 300
 agcgggtggca gtggcagcag tggcccaaag gcaggagcag cagacaagag tgcagtgggtg 360
 gctgccgccc caccagcctc agtggcagat gacacaccac ccccgagcg tcggaacaag 420
 agcgggtatca tcagtggcc cctcaacaag agcctgcgcc gctcccggcc gctctcccac 480
 tactcttctt ttggcagcag tggtagtagt ggcggtggca gcatgatggg cggagagtct 540
 gctgacaagg ccactgcggc tgcagccgct gcctccctgt tggccaatgg gcatgacctg 600
 gcggcgggca tggcggtggn caaaagcaac cctacctcaa agcacaaaag ttggtgctgt 660
 tggccaacct gctgagcaaa ggcaaaaccg ggccacggga gcttggnaan cc 712

<210> 3879

<211> 680

<212> DNA

<213> Homo sapiens

<400> 3879

cagagagcgt tgagctggga acagtgncaa gtgcttatca agttccttca ctctcaacac 60
 ggttgacaag aactgatggc attatggaac acatcacatg tgatacccaa tgaagcagca 120
 cacagaggta ccataagacc agtcaaaggc cctcagacat ccacttcgcc tgccagtcct 180
 aaaggactac acacaggagg gacaaaaaga atggagacca ccaccacagc tctgangacc 240
 accaccacag ctctgaagac cacttccaga gccacctga ccaccagtgt ctatactccc 300
 actttgggaa cactgactcc cctcaatgca tcantgcaa tggccagcac aatccccaca 360
 gaaatgatga tcacaacccc atatgttttc cctgatgttc cagaaacgac atcctcattg 420
 gctaccagcc tggggggagg tgggctgggc tggtcttggg agttcttgaa gctcccaagc 480
 tttgtagctc aggccaacag agcccagnga canaggcaga gcccacagg ggtgncaccc 540
 cctctgagtc ccattcgctt cacctatctt ctatggccgc cccatagcca tactgcccac 600
 tagcgtggcc gccangcatt acagctcaga ggcatcgccg ctacaaagct ttgngggcat 660

cagngccgct cagtgtgcgg

680

<210> 3880

<211> 630

<212> DNA

<213> Homo sapiens

<400> 3880

```

accaagaatc aatactacaa ctgcaggagc tccttcatct taaattcggg gtagccacag 60
aaatacttct caaacaagct agtactttgg cagatctgga cagtggaaat atggaaaaag 120
tcattaaaga tgaaaatgtt actctgtatg tgtgggcaaa cctcaagaag aatccaaggc 180
acagaagtgt tagattctct gaaacacaaa ttggatttga gattccaagg atattagcaa 240
caagtgacat tgctgtacga ctctgcata cccactatga tcatgtttct gcactgcacc 300
ctgtttcaac accatcaaaa gaatacactt ctgcagtaac tgagcttgtc aaagatgatg 360
ttaagaatgt agaaaaagca atcagcaagg aggtcgaaga agagtccaaa caacaagaaa 420
gagggtctca cttaattcag gaggaagaaa taaaagttag ggaggaacaa ggtgatattg 480
aagtgaaaat gagttctgct gaggaagaat ctgaagccat aaaatgtgaa cgagagatga 540
aagtattaag tgaaactgtt tcancaacac aattgttgcc gggaaaagaa atcctccgga 600
aaagncaana tttctttgaa gacaatgtgg 630
    
```

<210> 3881

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3881

```

gatcaataat tgcaatcagc ctgtcagaat acgtaaaggg aatccatgta attcacaggc 60
gggagttggt atttctgtag taaagacctg actgcagcat ttacacatga taaataggaa 120
atggcaaacc tggggaagca agtttgaact caatctggaa gtaatagcct aagcagcttg 180
    
```

ctcttcacac tgtgtttccc atgtcaccct tttcctctta ggtatcttgc ttctccctct 240
catttcaatc tctccttcc ttctgttcc ccatccttcc atccctccct cctgtctttc 300
tctgacacaa tgactcagct agtttaagag aatggtatta ttttgaagtc tgaaaatgtt 360
tctgtgatat ttgtcttttt actgatcttt aangcaactc acagaagtgt attagcctta 420
gatacgtaat cacccttga gatataatag caacagtaca cactgacatg ttcataagtaa 480
aaactgcctt tatgtttcac tgcattcaag caagtagata ttgtttgtt tcacgtattg 540
caaagcctat gttcttaagc atgtaccaa atcacattta nttcattaat ccatttactc 600
attcaccaag aatgtaacaa aatttagtga atatctgcta tgtgtcaggc acttttcttg 660
gctcctgata tacaaatgat attcaaataa aactcaaaan cctggtaagg ggaaggtang 720
gagacaaant atgtacc 737

<210> 3882

<211> 789

<212> DNA

<213> Homo sapiens

<400> 3882

acatgcgcag gaggtcaat gacagtcgag ctttggctaa ggctccgggg aaagggtcta 60
gccatgctgc atgtgaccg gggggtctgg gggtccaggg tccgagtatg gccactgttg 120
cccgcgctcc tcgggcccc ccgggccctc tcatcgctgg cagccaaaat gggggagtat 180
cgcaagatgt ggaaccccag ggagccccgc gactgggccc agcagtaccg cgagcgcttc 240
attcccttct ccaaggagca gctgctccgc ctcttaatac aggtaacagg aattccactc 300
gagtccggca gagaaggcgg ctttggaggc gttctcagcc cacgtggact tctgcaccct 360
gttccactac caccaaatec tggcccggct gcaggcctta tatgaccca tcaaccctga 420
caggagagacc ctcgatcagc catcactaac ggatccccag cgtctgtcta atgagcagga 480
ggtgcttcgg gctctggagc ccctgctggc ccaggccaac ttctccccgc tgtctgagga 540
caccctggcc tacgcgctgg tggccacca ccctcaggat gaggtccang tgacagtaaa 600
tttggatcag cctgggtggg agtcttggct ncatggcacg gnccttcct gtcattcttt 660
cctctacctg actgacactc ttctacaag aagatccttg cncgcttcct gtgtgggctt 720

caagtgggtcc ccttgnctac aggagccccc cacctttcct tgcccaagaa ccccttantt 780
ggtcccca 789

<210> 3883

<211> 714

<212> DNA

<213> Homo sapiens

<400> 3883

gtatttgcaa agtcagatat gcatgttttc ctttatgagt ttatttttat gctgcgaaag 60
gcctttccta cacttggttc agataaatgt gcgcatttc ttattccttt attcattgat 120
ttcagtttag ttccttagtt cagttggaat tttatttcaa tatgtgggag ctaatttttt 180
tttttttatt ccaaactatc accatcttgt ttcaatattg gttatggatg tccattctcg 240
tgctatgatt ttgaaatgct cttttatcat ctactaaatt ctttgacata cttagggtga 300
tctctgggtca ttctattctg ttctgggtgct ctgtcttctt tcattattct ttttcaaat 360
ttccttgact agccatgcat ttgccattta tttttataga tgtgttttgt aatattttta 420
tcaagttcca agtgcctcag cggtaggggc cggggaagtg tctgtagcgt cctccctct 480
caaccacaat aacaggcgga gggtcggcgt ancatcttca ccagaagtag atttcatctc 540
aacaaccac tttctttggt catctataag aagcaacttc tcactgttc aagttttaac 600
atgagattgc agcaattcag tcacatcttc aggctctaca tccgattgta gttctcttgc 660
tatttcctcc anactgcaa gcgacttctt ccactggaag gtccttttgg nngg 714

<210> 3884

<211> 790

<212> DNA

<213> Homo sapiens

<400> 3884

gagaatgtgt aataaccaa taagtatttc gatataggat caaataacga gataaaaatg 60

tcgttttggg acacttttaa ggtttattta aatgtgaaaa tttgagacta ttgaacctat 120
 gttttacagt ttggttaagca gttatgtttc taccttgggg agagaaatgt aaagcaatca 180
 tctttcagac atctatttta acaaactgaa aagccatttc tttatgattt ttgtattcat 240
 catctgtgat ttgctgaaag catacaactg acttgtgaat cattcactgt cagatataga 300
 ttcagtttaa cattttttat aagccgtcta tatatttggc actctacaag gtgctttcat 360
 ataccttcac tcattttatt tactttctta gtaaccctca taggtgtcat tgtccacatt 420
 tgacaagtaa agctaagaga tgttaaataa ctaggacaca gtcataattaa tgagtaataa 480
 aaccaggact tgaatacaag tcctagatct ctgagcacia tgctattgtt aggatctttt 540
 cccatttggg tattaaatcc ttttagtgga tcttgcttgg aagtctttat tgagcttttc 600
 ttccagtcag catatcaatt agatgtatca gaaataantg gttaaataac ttcagtcatt 660
 taaatgagga aattcccttt tagaatccta actacctaac tgtgtaatca tgnataaca 720
 gttatctact acaaaggggg ggagtttccg gtttaactcc ccaatttttt ccttangnag 780
 tagcaaccta 790

<210> 3885

<211> 683

<212> DNA

<213> Homo sapiens

<400> 3885

gtctcgccct cttgcagtct gcagcttctc ctgtcatcgg aaatgccagg ccaagggtggc 60
 tgccccctgc gttctccat ccaacatga gctggtgccc atcaccactg agaatgcacc 120
 aaagaatgta gtggacaagg gagaaggagg ctcccggggt ggaaacacac ggaaaagcct 180
 cgaggacaac ggctccacca gggtcacccc gagtgtccag cccacactcc agcccatcag 240
 aaacatgagt gtgagccgga ccatggagga cagctgtgag ctggacctgg tgtacgtcac 300
 agagaggatc atcgtgtct ccttccccag cacagccaat gaggagaact tccggagcaa 360
 cctctctgag cggagacctg acatcacgaa gtcctatgcc aaggtacagg aatttggctg 420
 gcccgaacct cacaccccag ccctggagaa gatctgcagc atctgtaagg ccatggacac 480
 atggctcaat gcagaccctc acaatgtcgt tgttctacac aacaaggga accgaggcag 540

gataggagtt gtcacgcgg cttacatgca ctacagcaac atttctgcca gtgcggacca 600
 ngctctggac cggtttgcaa tgaagcggtt ctaatgaggg ataagattgt gccccaaaat 660
 ttttgggggg gnccccccna aaa 683

<210> 3886

<211> 683

<212> DNA

<213> Homo sapiens

<400> 3886

gattctcatc cctgtgctca gagctctcaa gcacccacga tggccttctc aggccgagcg 60
 cgccccctgca ttatcccaga gaacggagaa atcccccgag cagcccttaa cactgtccac 120
 gaggccaatg ggaccgagga cgagagggct gtttccaaac tgcagcgcag gcacagtgc 180
 gtgaaagtct acaaggagtt ctgtgacttt tatgcgaaat tcaacatggc caacgccctg 240
 gccagcgcca cttgcgagcg ctgcaagggc ggctttgcgc ccgctgagac gatcgtgaac 300
 agtaatgggg agctgtacca tgagcagtgt ttcgtgttat agaaggtgat gtggtctctg 360
 ctcttaataa ggccctgggtgc gtgaactgct ttgcctgttc tacctgcaac actaaattaa 420
 cactcaattt ctagaaaatt tctccacana ctgagagctc cagaattgat gactcagagt 480
 gaaccganga gatcactact gtgcacaagt ttgcctccaa acaactgggt gatgcctcca 540
 aacagacctg gaatcatcca tttctccaag gatctctgct tcttcttgta aaataggcta 600
 ttttaaggact acaatctgag cattaatggg tatcaaactc ttgggctttg ggaaccaaaa 660
 aaattttccc ccngntttcc ccn 683

<210> 3887

<211> 677

<212> DNA

<213> Homo sapiens

<400> 3887

taacaatgac acagttgact ttggggactc ggggaaaggg tgggaaggga gtgagggata 60
 aaagactaca aattgtgtgc agtgtgcact gctagagtgc actaaatctc acataccact 120
 aaataactta ctcatgtaac caaacaccac ctgtttccca aaaacctatg gaaattaaaa 180
 aaaaaaagtt aatctcatct ggaaaatacc ttttcagcaa catgtcgtct ggtatttggc 240
 caaatatctg gttactgtga cctagtcaag gtgatgtgta aagttatcca tcacaaacag 300
 ctagattcat tccacctaca cttcaaggga tcgccttgaa gaagtcagta tttttgcaga 360
 gatgcgtctc cacccaaagg tcctaggtac ctttgagcaa ttgtgaaagc cataaccctt 420
 caccgccaaa tgacctgtcc tcatgcatat agaattctac aatcacaggg gttatggatc 480
 ctatttagag cctatataga aatcttgagg acgtcagtag ttctctagaa tccctgttcc 540
 aggcgccctc gttcctgagc agtggttatgt gaacagtgtc ctctgtctgt ggctctgtgt 600
 cctggctgan aaaggcagcg ctgccttcag ggaactgggc ccattgcctg gggggggaaa 660
 aagggttttn ccaangg 677

<210> 3888

<211> 666

<212> DNA

<213> Homo sapiens

<400> 3888

agggtgctgaa ggagctgttg gagacgtggg gcagcagcag tgccatccgc cacactcccc 60
 tgccgcagca gcgccacgtc agcaaggctg tcctcatctg cctggcgcaa ctcggggagc 120
 cggaactgcg ggacagccgg gatgaactgc tggccagcat gatggcgggc gtgaagtgcc 180
 gcctggacag tagcctgccc cccgtgcgac gcctgggcat gatcgtggca gaggtcggtta 240
 gtgccccgat ccaccccgag gggcctcccc tgaaattcca gtacgaagag gatgaactga 300
 gcctcgagct gctggccttg gcctcccccc agcctgcggg tgacggcgcc tcggaggcgg 360
 gcacgtccct cgttccagcc acggcagagc cccctgcaga gacccccgca gagatcgttg 420
 atggcggcgt cccccaagca cagctggcgg gctctgactc ggacctggac agcgatgatg 480
 agtttgtccc ccacgacatg tcgggggaca gagagctgaa gagcagcaag gtcctgcct 540
 acgtccggga ctgcgtggaa gccctggatg tgctgactct ggctgcccaa gagctgtcta 600

aggcctgggt gcctcgggna ggactcccca acctgggctc cccaaagtcc caagnaaccn 660
 cccccc 666

<210> 3889

<211> 656

<212> DNA

<213> Homo sapiens

<400> 3889

ttacctgtca tgcccgatgg ctctgtgctg ctggtggaca atgtctgtca ccagtctggg 60
 gaagtctcca tgggctcctt ctgccgccta cccgggacct ctggctgctt cccctgcccc 120
 ctgaatgccc tggaggaaca caacttcctg tttcagctga gaggggggtga gcagccccct 180
 ccagggggcca aggagggcct ggaagttccc ctgattgctg tggttcagtg gtctacccca 240
 aagctgccct tcactcagag catctacacc cactaccgcc tgcccagtggt ccgcttgagc 300
 cgcccggtgtt ttgtgatgac cgcttcttgt aagtcccttg ttcggacctt cgagcgtttc 360
 actgtcacct acacgtgct taacaatctc caagacttcc ttgctgtgag gctcgtgtgg 420
 accccagagc atgcacaggc tgagtggctt tgagaatcag atgagactgt gctggcgaan 480
 gccctgtggg aatgaggaac gctgtantgt ttgctgttcc ctgtttctgc ccccaaggaa 540
 agcagctgtg tgaggaggag cgccggggcca tgcangctgc cctggactcc gtcgtctgcc 600
 anacgccct caacaacctt ggcttttccc ggaagggcaa cncgctcaac ttcaag 656

<210> 3890

<211> 658

<212> DNA

<213> Homo sapiens

<400> 3890

gcagtgaagt gtttgtctga atttgctgac aatgcagctt tcccagacac aagtatggaa 60
 gcaattcgac ttattcgcca ttgtgcaaaa tatgtgtctg atagacctca ggctttcaag 120

gaatacacaa gcgatgatat gaacgtagca cctgaagaca ggggtgtgggt gagaggatgg 180
 ttcccaattc tctttgagtt atcctgtatc atcaatagat gcaaattaga tgtaagaacc 240
 aggggtttta cagtaatgtt tgaaataatg aaaacatatg gccacactta tgagaaacac 300
 tgggtggcagg atttatttag aattgttttc agaatctttg acaatatgaa attgccagaa 360
 caacagacag agaaagctga atggatgaca acaacttgca atcatgcact ttatgcaatc 420
 tgtgatgtat tcactcagta tttagaagta ctcagtgatg tacttttgga tgacattttt 480
 gctcagctct actggtgtgt gcagcaagac aatgagcagt tagcgcgatc tgggtacaaac 540
 tgttttagaga atgttggttat tctgaatggg gaaaaattta ccctagaaat ctgggataaa 600
 acttgcaact gcacactgga tatcttcaan ancacaatcc cacatgcgct ggtttngg 658

<210> 3891

<211> 659

<212> DNA

<213> Homo sapiens

<400> 3891

acgggatggg gagctggacc aggctggagt gcaatggcgc gatctcagct cactgcagcc 60
 tccgcctccc gggttcaagc gattcttctg cctcagcctc ccgagtgaca gcggcatgga 120
 catatgcccc aggttttctt gctgggggtcc atccatgagc ctgcagggtgc cctcatggag 180
 ccccagccct gccctggaag cttggctgag agcttcctgg aggaggagct tcggctcaat 240
 gctgagctga gccagctgca gttttcggag cctgtgggca tcatctacaa tcccgtggag 300
 tatgcatggg agccacatcg caactacgtg actcgctact gccaggggccc caaggaagta 360
 ctcttctctg gcatagaacc tggacctttt ggcatggccc agactggggg aaagggtttg 420
 gcttccccag tgggtggagt ggggggttct aggtggatgc ttggctgggt gtgctgtgga 480
 gaaggagcat gtgcatggct gtanacatgt gtaggtcctc ccgccccatt ctgtctcaac 540
 acatatactg gtcctgtgg tccggggccc tctcccagcg tctctgccc taattaacca 600
 agcacattaa tgggnanttt cgttttccct gcgagctggc cantaatgt cccttcccc 659

<210> 3892

<211> 571

<212> DNA

<213> Homo sapiens

<400> 3892

```

tgtcctgcgg gtccaggact gtccgcgggg ttgaggggaag gggccgtgcc cggtgccagc   60
ccagggtgctc gcggcctggc tccatggccc tggtcacagt gagccgttcg cccccgggca  120
gcggcgcctc cacgcccgtg gggccctggg accaggcggt ccagcgaagg agtcgactcc  180
agcgaaggca gagctttgcg gtgctccgtg gggctgtcct gggactgcag gatggagggg  240
acaatgatga tgcagcagag gccagtictg agccaacagc accctagttt cattctcaac  300
tctagccctg cacactcacc tatggcccgg gagattgaca acttctaccc tgagcgcttc  360
acctaccaca atgtgcgcct ctgggatgag gagtcggccc anctgctgcc gcactggaag  420
gagacgcacc gcttcattga ggctgcaaga gcacagggca cccacgtgct ggtccactgc  480
aagatgggcg tcagccgctc ancggccaca gtgctggcct atgcatgaa gcantacgaa  540
tgcagcctga acangccctg cgccacgtgc a                               571

```

<210> 3893

<211> 680

<212> DNA

<213> Homo sapiens

<400> 3893

```

aagtatatcc ctctccctt tcaaagataa gtggatccat tctcaatgaa cttattggac   60
ttgtgagatc acccttattg caggggggag ctcttagtgc catgctagac tttttccaag  120
ctctggttgt catggaacaa ataatttagg atacatggat ttgttgcgca tgctgactgg  180
tccagtttac tctcagagca cagctcttac tcataagcag tcttattatt ccattgccaa  240
atgtgtagct gcccttactc gagcatgccc taaagaggga ccagctgtag taggtcagtt  300
tattcaagat gtcaagaact caaggtctac agattccatt cgtctcttag ctctactttc  360
tcttgagaaa gttgggcac atattgactt aagtggacag ttggaactaa aatctgtaat  420

```

actagaagct ttctcatctc ctagtgaaga agtcaaatca gctgcatcct atgcattagg 480
 cagcattagt gtgggcaacc ttctgaata tctgccgttt gtctgcaag aaataactag 540
 tcaacccaaa aggcagtatc ttttacttca ttcttgaag gaaattatta gctctgcatc 600
 agtggtgggc cttaaaccat atgttgaaaa catctgggnc ttattactaa aaagggccca 660
 aaanccnttt gggggtttgg 680

<210> 3894

<211> 786

<212> DNA

<213> Homo sapiens

<400> 3894

caatagtatc ttaattttta cttgcggtga ctattcttgc cacaatatg gagaataatg 60
 atagatgata tactagattt ttcaaagtgt gaaaaccttt agactttttt tagcaattag 120
 tttgacattc gctactatag taaccaagca ctcattatat atgcatcctc caaatgtttc 180
 atgcttattt ataggaaagt tatattaatg agattaataa tgtgaaatac agttttcctg 240
 caaaattagc attagagaat tgattttaga taacagattt ttaaagtttt agagaaaagt 300
 acagtaatac agtaaaactga aagagtatat agatagcaat aaaataacat aagtggacat 360
 gtttatagta aatactctga agtaaacaac cgtttttatt aactgcatct cattagggaa 420
 agttttatatg tcttgttatt ttttattaac attttattta ccattcagag tgaaaattac 480
 taatttgagt attaacaaat aactgaataa atggatcatt acagttaggt tttctcaa 540
 tgcaaaaattt gccttagcaa ttatctttga acatcccgaa ccagattttt aaatcccat 600
 tttgtttaat aagggtaaaa ataccatcaa aatgacttct cataccaaag aataagccat 660
 catatttttt cggtgttgga aacaacattg aaagtcagaa ttgggntttg nttttaattc 720
 cttatacggg ttacataagc aatatcctgg cccctttaat taataaggat taatggtcgn 780
 ccttca 786

<210> 3895

<211> 709

<212> DNA

<213> Homo sapiens

<400> 3895

```
tatgtagatt caaaccccat tattaagtaa gttttcttct aagtagacaa cctcttcttt 60
accagaact tctctttgta accgtttcat ccatattagg ctgtgtattt taaacaaaca 120
aataaaaata agttgatatt tatcttcctt cttagtcaaa atgcttcttg gaggttgggg 180
actctttctt tgacgtgttc ttagagtat atttcagttt gtcttttttag taaagatggc 240
aacatctcat tggattagga aaaattgaaa accatatgtt ccatgtaaag aaatcattta 300
ttgtttcgat atttgtgcca ctcaaacact gaatgcttta tttctgcaaa agcatattga 360
ttcgttttct gcagtgaatc ttatatTTTT caaccttctt aaacaatata ttctgaactt 420
gatttagtct ttacatgatg atttcctgat aatcattatt gtattaagtt tcctagggct 480
gccataatag aatatcataa attgggttgt ttaaacaaca gagatttatt ggatcacagt 540
tctggaagca agaagtctga gatcaagcta ttagaaggga tggttcctta taagggttgt 600
gggagggaat ctgtttcatg cctcttgctt agtttctgga gtttatggca atcgttggaa 660
ttccttgacc tgtaaggnat ctccctgatt tctgccttca tenttaana 709
```

<210> 3896

<211> 539

<212> DNA

<213> Homo sapiens

<400> 3896

```
ccgagacgat ggggctcagg acctgtgccg gtgaatccaa ggactatgcc ctccatgcgg 60
gtgacggctc ttccgaccg gaggtgctgc tgaacataga aaaccaaaga cgagggtcaag 120
agctgagtgc caccggcag gcccatgacc tgtccccagc agccgagagt tcctcgacct 180
tctctttctc tgggcgagac tcctccttca ctgaagtgcc acgggtcccc aagcacgccc 240
acagctcctc cctgcagcag gcagcctccc ggagcccctc ctttgggtgac ccacagctat 300
cccctgaggc ccgaccagg tgcacttcac attcagaaac gccaaactgtc gatgatgaag 360
```


aaaaggtgga tgaacgagcc aagctgagcg tcgccgcaa gaggttgctt ttcagggaga 420
 tggaaaaatc ttttgatgaa caaaatgttc caaagcgacg ctcaagaaac acagctgtgg 480
 agcagaggct acgccgtctg cangacangt ccctcaccca agcccatcac cactgaana 539

<210> 3897

<211> 717

<212> DNA

<213> Homo sapiens

<400> 3897

aattatttca cagtatatca agctatgac caattccaca gttcatactc aggcaaaact 60
 gcctttctca ataacaggag tttggtacag aagctacaaa accaggggcaa aggatgttaa 120
 attgatactt ccaatgtgcc ttattttgag cctgatacta tggaattttg cctgctatta 180
 cagtacccaa ttattgcttg gaacaatttt gcatttcctc gcattttaca gagcatggct 240
 tgactgacaa tttgacaatc agatagccta ggctgatgcc attgtatcta ttaataact 300
 ttgttaacca attaacacaa gcagacaatt cccataataa ttgagtatta aaaagcacia 360
 caacaaataa acaatggaca cttagaacaa acatctgaac actgttttag cccagttgcc 420
 ttcttttctt gaaagctcca aagacataca cacacacata cacatacaca tacatacaca 480
 catgcacaca cacacacgaa gaagcacaaa gaaggcaaag tacatttcat ttgggattg 540
 aatttttact ctggaacca gtataaagct ctaacaggta ggctgatctt caaggaaagg 600
 ctctttttct gtgtaaattg taggntactt cccttcaaga nccctatgtg aatctagaat 660
 ctaaaccatg gatggcgggg atggcgacac ctggtgctaa aggtttgnga aaaagtt 717

<210> 3898

<211> 681

<212> DNA

<213> Homo sapiens

<400> 3898

actccagcct ctctcgctac cctccaatct ccctgtccag tctttttctt ctctagtaga 60
gacaaaggag acacatttta tccgtggacc caaaactctg gcgctggta cagactcagg 120
aagacagtct tcccttgggtg tctaactact gcggggacgc ctgcctaatt attcaccac 180
attccactgg tgtctgatca ccttggggat gcctgccttg gtcattcacc cacattccca 240
tgggtggcaag tcatttgcgg ggacgcctgc tttggctgct ccccccgcc cttctccgtg 300
tctctacttt tctctttaa cttacctct tcaatttggg caatcttccg cctccattc 360
ctccctcttc ccccttagcc tgtgtactta aaaacttctc ttaaactaac acctgatata 420
aaactcaaac gtcttatttt cttctgcaat tactgcttgg ccgcaatata aacttgacaa 480
tggntccaaa tggccagaaa acggcactta tgatttctcc atcctacaac ccatttcaat 540
tttatatgga tgcaccttct tactcagcca caatcttggt ccagacacca agnccccctg 600
gcaactatct tccagtcctc taacaagcta nacaggaaat ttgcaaactg ctaatcttct 660
cttgcctaatt ccagattccc a 681

<210> 3899

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3899

ctccgccccat ttatgttggg tcttctccaa ctctgaagaa ttatgttaga gttgtggagg 60
tttgggtggga tgaatataaa gactacttct atgctagtcg tcctgaatcg caggcattac 120
catatgggga tatatcgag ctgaaaaaat ttcgagaaga tcacaactgc aaaagtttta 180
agtgtttcat ggaagaaata gcttatgata tcacctaca ctacccttg ccacccaaaa 240
atgttgactg gggagaaatc agaggcttcg aaactgctta ctgcattgat agcatgggaa 300
aaacaaatgg aggttttgtt gaactaggac cctgccacag gatgggaggg aatcagcttt 360
tcagaatcaa tgaagcaaat caactcatgc agtatgacca gtgtttgaca aaggagctg 420
atggatcaaa agttatgatt acacactgta atctaaatga atttaaggaa tggcagtact 480
tcaagaacct gcacagattt actcatattc cttcaggaaa gtgttttagat cgctcagagg 540
tcctgcatca agtattcatc tccaattgtg actccagtaa aacgactcaa aaatgggaaa 600

tgaataacat ccatagtgtt tagagagaaa aaaataaacc aataacctan ctactgacaa 660
gtaaatttat acaggactga aaaccgcctg aaacctgctg caactaatgg tantaaccnc 720
tgtata 726

<210> 3900

<211> 675

<212> DNA

<213> Homo sapiens

<400> 3900

agaaaaaatg tgctgcgttc tgaaaaataa ctccttagct tggctctgatt gttttcagac 60
cttaaaatat aaacttgttt cacaagcttt aatccatgtg gatttttttt tcttagagaa 120
ccacaaaaca taaaaggagc aagtcggact gaatacctgt ttccatagtg cccacagggt 180
attcctcaca ttttctccat agaagatgct ttttcccaag gctagaacga cctccaccat 240
gatgaatttg ctttttaggt ctttaattatt tcacttcttt ttagaaactt aggaagaagt 300
ggataatcct gaggtcacac aatctgtcct cccagaaatg aacaaaagtc atcacctttt 360
ctgcttgcta cacaggcaac gattccccca tcagctgccc ggaccctttg gcctggcttg 420
gtgtgcaagc ctgtctgttt gcttaaagtc agtgggttct ggtgcaggga gtgagaagtg 480
ggggaagtga aagggaagc atccgtgaga aagcggncac ggttttccct ccttgtgtgc 540
ccatggggca ccagctcatg gncctttttca agtcatcca gtttgtacaa gacttaagct 600
tctgaactct aagaatgcca aaggggaccg nacgaagact ccccatcaca agcgaagctc 660
tgtccntaaa angta 675

<210> 3901

<211> 650

<212> DNA

<213> Homo sapiens

<400> 3901

gacatgtctg ctagccaagg agcaccacga gtggccagca gccaccagag ctgggagaga 60
 ggccctgggac ggcccttgccc tccagcctcc agctggagcc agccctgccg ccaccttgac 120
 ttcagactta cggcctccag agctgtgagg aacgaatccc tgttgtcctt aactgcccgg 180
 gctgtggtgc tttgccacag cagctccagg acattgagac aggtgacctc ccagggccac 240
 tgtttctccc accctgcaact tacttcacca gctggagtga aggcaggga ccctgggtcc 300
 cccaggagca gcagctgctg tgagcatcac agaaaagcag ccccgagag caggcggtcc 360
 aggcaggggc ttgtggtccg ttcactgtgc tgcacagccg cgacctcatt ggcaggacgc 420
 cccggggaca aggagcatcc attagtaatt ggttttggtt ttgattttgn tttcntgaga 480
 tacggtcttg ctctgtcggt cagcctggca tgcagtggca caatcttggc ttactgcagc 540
 ctigatctcc caagctcagg tgatcatccc acctcggnct cccgaatanc tgggactgca 600
 ngcacgcac aacatgcctg gctaagtttg gatatttttt agagatgggg 650

<210> 3902

<211> 643

<212> DNA

<213> Homo sapiens

<400> 3902

gagaggcgcc caggcggcgg cggcggcggc ccagcttctt ctttcctcgc acagccaggc 60
 ggccccctgct cgagtcccgc gtcgccatgg ccgcggttcc cgagttgctg cagcagcagg 120
 aggaggaccg cagcaagctg agatctgtat ctgtggacct gaatgttgat ccctcgcttc 180
 agattgacat acctgatgcg ctcagtgaga gagacaaagt caaatattaca gtgcacacaa 240
 agaccacact gccacgttt cagagcccag agttttctgt tacaaggcaa catgaagact 300
 ttgtgtggct acatgacact cttattgaaa caacagacta tgctgggctt attattccac 360
 ctgctcctac gaagcccgc tttgatggc ctcgagagaa gatgcagaaa ctgggagaag 420
 gtgaagggtc tatgacaaa gaagaatttg ccaagatgaa acaagaactg gaagctgagt 480
 atctcgctgt gtttaagaag actgtgtnc ccatgaagt ctttcttcag cggctttctt 540
 ctcacctgt tctcagtaaa gatcgcaact ttcattgtat cctggaaata tgatcacnga 600
 tctaagtgtt aggcggaaaa aatactanag agatgttntg cgg 643

<210> 3903

<211> 779

<212> DNA

<213> Homo sapiens

<400> 3903

```

tttagtactt aagtgagcat gttaccaagg cactgttcta ggtattgggt atgatgaaag   60
agctgtcctt agcaaagagt ctggcagaaa attctgtttc cttctaatta cagaaagaac  120
agataagagg atttgtaaaa atttttaagg ctgagagaat attcgaattc aagcaagatg  180
tattgtctat tatgtgcca aacattttta tttatatatt ttatttatct cttagaatg   240
aggatacatt ctgagaaatg catcatttgg tgatcttgtc attatccaaa cattatcaag  300
tgtacttaca cagccctata tggtagagcc tactatagcc tattgctcct aggctataac  360
atatatagca tgtcactgta ctgaatactg taggcagttg taacacagtg ataaatattt  420
gtgtatctaa acatttctaa atacagaaaa ggtacaataa aaatatggta ttacagtata  480
tgggacaata gtcacttatg tgatccaaca ttgattgaaa tgtcattatg tgggtgatga  540
ctgnatatta tctcatttaa ggacatgaca ttttaaaaat atttttttac tcagagttct  600
tcagaacact cactaagtgg ggaattctag tcatacaagg gctcttaggg gggggtgttt  660
gtgctatatt catagattag cctaattcta ccaaacagta tttctagtaa ttcatacatc  720
cttaatccca agggccgtgg acttcactgc ttgnccntgt cacccaaca accntggga   779
    
```

<210> 3904

<211> 694

<212> DNA

<213> Homo sapiens

<400> 3904

```

gtgcttcctg tggtgacgt catctggagg agatttgctt tctttttctc caaaagggga   60
ggaaattgaa actgagtggc ccacgatggg aagaggggaa agcccagggg tacaggaggc  120
    
```

ctctgggtga aggcagaggc taacatgggg ttcggagcga ccttggccgt tggcctgacc 180
atctttgtgc tgttgtgtgc caggcacggt tccttacgcc ccatgtgtgc tgttgtgtgc 240
ctgcctgtat atgtggcttc ctctgatgct gacaaggtag ggaacaatcc ttgccagagt 300
gggctgggac cagactttgt tctcttcctc acctgaaatt atgcttccta aaatctcaag 360
ccaaactcaa agaatggggg ggtggggggc accctgtgag gtggcccctg agagggtggg 420
gcctctccag ggcacatctg gagttcttct ccagcttacc ctagggtgac caagtagggc 480
ctgtcacacc aagggtggcg cagctttctg tgtgatgcag atgtgtcctg gtttcggcag 540
cgtanccagc tgtctgttga ggccatggct cgtccccgga gttgggggta cccgttgcan 600
agccaggggac atgatgcaag cgaagcttgg gatctgggca agttggactt tgatcctttg 660
ggcanatgtc ccattgctcc ctggancctg tcaa 694

<210> 3905

<211> 472

<212> DNA

<213> Homo sapiens

<400> 3905

acgcagcgcg gttgctgggc acctcgacta tcacctgacc gtagtaatat ctcccgtac 60
gcgcgttgtg accaatgctg catacaggag atgagggagg acggccagac acctggaagc 120
cggaaaatgg tgaaaggcag gattgggaac cccacagacc gcagctcctc ccaggagaac 180
cccacacatg agtctggatc ctgcctatga tcctcccgtg gccccacac aatctgggga 240
gacgcggggc gcggggcact gcgctgccga gagggctccg gactgaggct gcagttgctg 300
cgcaggggacg gctcaggatg cccgggggtcc cggctgctgg cccagcccca ccctgtggcc 360
gagggggaccc agggacgagc tgcgccaggg agactcgggt ccgcagaccc cggaatcgct 420
gctgacaggc ccgggtccca ccacagcang tccanccan cccctcctcc ca 472

<210> 3906

<211> 575

<212> DNA

<213> Homo sapiens

<400> 3906

```

ctttctccat ttgccaagcc catggcattg ctgccaccct gatggagcgc cctctcatct 60
ggcaccttcc tggcctcttt cccaggcccc agttctgtcc atgcagctgt ggggtgcttcc 120
tgcattgcgg gtctcacggg gaggagacga gagtgccctt ggttgagtca ggaaagaatt 180
ctatcttcac gtcgtgcca gcaaatgacc acagcagctt cacgacctct gcaggaacct 240
atcttggtaa agaaacgggg cctatgtggt ggccgagcct caggtgtggc cgagcttcag 300
gtgtggccct tatgcacagc acagcccaag cctgtgggca ccactcgccc tgggctgcct 360
ggcacctgga ctccctccca tccttggccg aggtctgcgt ggcccttcag ggccgaatct 420
gacactgtct tcctcctgag tctgcccccc gggcttcctg cccacccccca ggctgtttca 480
tggcctctgc agggagcttc gtanaggtga ggctggtgcc atctgtctgc ttcanaccan 540
ctcaggctct gcgtgcctca aagtcccctc tgcac 575

```

<210> 3907

<211> 788

<212> DNA

<213> Homo sapiens

<400> 3907

```

gttagccaag attacaatga aggactactc caaattagga gtccatgaca tgaacgaccg 60
caaacgtctc ttccaactta tcaaaattat taagattatg caagaagaag ataaagcagt 120
cagtatccca gagcgtcatc ttcagacaag cagcctgcgc atcaaattctc aggaattaag 180
atctggccct cgcagacagc tgaattttga ttctcctgct gacaataaag acagaaatgc 240
cagcaatgat gggtttgaaa tgtgcagttt atcagatttc tctgcaaatag aacagaagtc 300
cacttaccta aaagtgctag aacacatgct accagatgat tcccagtacc atacaaaaac 360
aggaattctg aatgccacag ctggtgattc ctatgtgcaa acagaaatca gcacttcact 420
cttttcacca aattaccttt ctgcaatact gggggattgt gatattccca ttattcaaag 480
aatctctcat gtttcagggt ataactatgg aatcccccat tcttgatatca ggtaataaat 540

```

tttatctttc tttcttttga gggaaagtag cctcaggcaa gggcaggcct ctccttcatg 600
 tccagcagac agcatctact ccttatttat agtaaataa tataacagaa attatcatga 660
 acagcatttg catcaataat aaggatacct ggatgtggga aaattaatga gaaattggga 720
 ctccaaggg gggagaaaga tggatggtc atgtcatcag nanagggtgt acttgcaaga 780
 tttgttca 788

<210> 3908

<211> 475

<212> DNA

<213> Homo sapiens

<400> 3908

taaaattatg aaactcatag aagaaaacag ggacaaatct tcatgacaaa tatgtacaaa 60
 tgaccaataa gcacatgaag agtctcagca tccttagtca ttgggaaaat gcaaatcaaa 120
 aacacagtga gctgtgactt catgcttact acgatggctg taattaaaaa acaggaaagg 180
 gccgggcgcg gtggcttaag cctgtaatcc cagcactctg ggaggccgag gcgggcggat 240
 cacgagggtca ggagatggag accctcctgg ctaacacggt gaaaccccggt ctctactaaa 300
 aatacaagaa aaattggctg ggcgttgttg cgggtgcctg tgggtcccagc tacttgggag 360
 gctcaggcag gagaatggcg tgaacccggg aggtggagct tgcantgagc tgagattgtg 420
 ccactgcact ccagcctggg tgacacagtg agactccatc tcataancaa anaca 475

<210> 3909

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3909

gaaaaataaa taaatggcat agactgggaa agattcatag ttggcacaat tatgtatata 60
 taaaatcctc gggaatgtac actttacata ctagaattta aaagtaagtt tagcaactgt 120

gtaggttcgt tttcatgctg ctgataaaga catacctgag actggacaat ttacaaaaga 180
aaggtttatt ggacctatag ttccacatgt ctggggaggc ctcacaatca tggcagcagg 240
caaggagggg caagtcacat cttatgtgga tggcaacagg caaagagaga gcttgtgcag 300
ggaaactcct gtttttaaaa ccaccagatc tcatgacacc cattcactgt caggagaaca 360
gcatgggaaa gaccaccccc catgattcaa ttgtctccca caaggcccct cccataccac 420
atgggaatta tgggagctac aagatgagat ttgggtgagg acacagagcc aaaccacatc 480
agcaacatgt cagaacacag aaaaaatgta aaatatcact gtattttctat gtactagtag 540
tgaactgtct cctagcttgt ttgttttaaaa aaaaaaatcc catggncttc aatttgggtca 600
tttaaaaata atctacaagg tatactgttt ttctgttctt gttatttccc taacttttaa 660
gggttccnat tttttccacc ctggttagaa tcttgntccn cacctaagag aaataaattt 720
cc 722

<210> 3910

<211> 602

<212> DNA

<213> Homo sapiens

<400> 3910

acacacaggg ctcccccccg cctctgactt ctctgtccga agtcgggaca ccctcctacc 60
acctgtagag aagcgggagt ggatctgaaa taaaatccag gaatctgggg gttcctagac 120
ggagccagac ttcggaacgg gtgtcctgct actcctgctg gggctcctcc aggacaaggg 180
cacacaactg gttccgttaa gccctctctc cgctcagacg ccatggagct ggatctgtct 240
ccacctcacc ttagcagctc tccggaagac ctttgcccag cccctgggac ccctcctggg 300
actccccggc cccctgatac ccctctgcct gaggaggtaa agagggtcca gcctctcctc 360
atcccaattc tcggggggccc ctccagtgcg agggggctgc tccccgcga tgccagccgc 420
cccatgtag taaaggtgta cagtgaggat ggggcctgca ggtctgtgga ggtggcagca 480
ggtgccacag ctgccacgt gtgtgaaatg ctggtgcanc gagctcacgc cttgagcgac 540
gagacctggg ggctgggtggg gtgcaccccc aactancact ggancggggt ttggaggacc 600
ac 602

<210> 3911

<211> 742

<212> DNA

<213> Homo sapiens

<400> 3911

```

aagggcgtgc agatggacag ggcggtcatg ctgtaccaca aggctggcca cttctccaag   60
gccctggagc tggcctttgc caccacagcag tttgtggccc tacagctcat agcagaggac   120
ctggatgaga cgtcagaccc tgcgctcctg gcccgctgct ccgacttctt catcgagcac   180
agtcagtacg agagggcggt agagctgctg ctggctgtcc acgggggtcg cacacagcct   240
gcgcaccgac atgcacatca gtggagtgtt tgccaccaag gatgctgtcg cagtctggaa   300
cggaaggcag gtggcgatct tcgagctttc tggagccgcg atacggagtg cagggacctt   360
cttgtgtgag acgcctgtgt tagcaatgca tgaagaaaac gtttacacgg tggagtcaaa   420
ccgagttcaa gttcgaacct ggcaggggac tgtcaaaaaa ctcctccttt tctcggagac   480
tgaggggaat ccctgcttct tggacatctg tgggaatttc ctggttgtan ggacagactt   540
ggctcacttt aaaagctttg atctttcccg aagagaggca aagcacactg tanctgcaag   600
agcctggcgg agctggtccc tgggggtgggg ggcatcgctt ctctgcggtg caacaacaac   660
cgggaagcac catcaagcat cctccccaan caaagggtga caaacaancc cctgaattcc   720
aaaaatctgn ctttctaacg aa                                           742

```

<210> 3912

<211> 742

<212> DNA

<213> Homo sapiens

<400> 3912

```

caaacagagg tttccactct tgaacaagat catccaggtt cttaaagtcc tccccacttc   60
caccgcttgc tgcgagaaaag gccgcaatgc cctccagcga gttcgcaaaa accaccgctc   120

```

ccgcctgacc ctggagcagc ttagcgacct gttgacaatc gctgtaaacg gaccgccaat 180
 caccaacttt gatgccaagc gagccctgga cagctggttt gaggagaagt ctgggaacag 240
 ttacgcgctg tctgcagaag tcctcagtag gatgtctgcg ctggagcaga agccagcact 300
 acagaccatg gaccacggga cggagtttta ccccgacatt tagggagctg gcgctgcaga 360
 gttcactaag ctgttgaata tttttttaat ctatactcat aagctttgat atattatata 420
 aatatatatt atattanatt atattatatt atatatatat atatatataa actcacactg 480
 aaaattttta aaaaccaagg tgacgcgtcc accagaagcc actgggagat ttcanaaagg 540
 aaaaatgttg gaaactgact cttgtctaca aaatttggca gctgcaacat acatggcanc 600
 tcattttcac tcacagaagc acgtgctggg gcctcctgtg ttcccaactt actgtccacc 660
 aacagcataa gctaaaatga caggtctctg tcatcacctt taggtagcnc attttggtna 720
 angttttcaa tttgcggggt gg 742

<210> 3913

<211> 667

<212> DNA

<213> Homo sapiens

<400> 3913

ttggatatca acagggaac tagaaggtat cactgctcag gaaaagatca gattgttcct 60
 tctttgaata cagagtcctc taatcctgtg cttagaagt tagaaaagct aaacactgag 120
 aaggaagaaa ggcaaaaaca gttgcagcaa cagaatgaaa aagagatgat ggaacagatt 180
 cgccagcaaa cagatatatt agagaaggag cgcaaaacct tcaagacaat tgaaaagcca 240
 agaattggag agtgtttggt ggcaccatct tcctatcagt caaagcaaag agtagagagg 300
 ccatcctctc tcctcagctt aaataacctc aataaggagg aacttaatgt actgggggtcc 360
 ctatcattaa aagatgcagc tcttgcccaa aaagacagtt cccctgctca cttaccccca 420
 aaggaccgac ctgtcacctg gttctttgaa agaaaaggaa gtccatgcca atctagtact 480
 gtcaaggaat tatccaagac agacagaatg ggcaccagc tgaatgtagc ctgtaaactc 540
 tcaaataatc gcatttcaaa aagagaacac tttangccaa ctcagtctta cagccacaat 600
 tctgatgacc tttccagaga gggaaatgct anggccantt tcttcactcc aaaggacaat 660

atgagta

667

<210> 3914

<211> 783

<212> DNA

<213> Homo sapiens

<400> 3914

```

aaaagttatg cataactcata aaaattcaaa caatgctgaa ttgaaaaagg aaaagttagt 60
ggctctttat ccactttatg tcccactgcc cagagatcat caccatgagc agtttggtgt 120
atgacattcc agatacgcac acatatcttc atacatacac acatacaaat atgtatacat 180
ataacaaaag actgtaaaat ataataatat gatcatggac aacttgccat ttggacttac 240
tccattcttt ttttttaatt ttattttctt ggactcaggt cacaaattta ttcttttaaa 300
acactgcata gtactctaca gaatgggagc actttgattt atttaaccaa ttccttattg 360
gatttgtgtc aatgcttcaa atcaaaactt tcaaaataaa atttacaggg tgtcttggtt 420
gtgtttctat gtcaatacat agattgacgt tatcttttat ctttttttaa acagatgcag 480
tgtacttcat aatatgaatg gaacacaatt tctttaaaca tgtgtctatc aaaaatcttc 540
caattttttt ttactcttat cagtaatgaa catcggttgc acataatctg tgtacaaaag 600
tacgactgtt tctcaagggt aaattcctan aaggaggata actgggatna aagggtattt 660
acatgtaaaa ttgggaaaca tgttgccaaa tgccccaaga gggtaaaccg gggttaatcct 720
tcaccaaggg gatatgttcc caacaacctc aacaagnttt acccccentt tcaagnccctg 780
gcc 783
    
```

<210> 3915

<211> 729

<212> DNA

<213> Homo sapiens

<400> 3915

cagatgttga agaggatata gcaggaccta aacttgtgat cgtttggggg aggtcacaca 60
 cgtttctgag tgggaatgga tgggcgtgaa tgacgtgccc tcttaaaaag cacaacagtc 120
 ctttaagagg agcaaaattg agttttccca ttttggccaa gattttgaag acagttcaat 180
 gtattctaca ttgacataa gatgagaact ttctaaagta ttctctccaa gagcgtaaac 240
 gatgactacc ccagccctgc tgcccctctc tggacgtagg ataccacctc tgaacctggg 300
 gccgccttcc tccccacatc acagggtctac cttgagactt tctgagaagt ttattcttct 360
 ccttattctt agtgccttca tcactctgtg ttttggggca ttctttttcc ttccagactc 420
 ttcaaaacac aaacgctttg atttgggttt agaagatgtg ttaattccac atgtagatgc 480
 cggtaaaggg gctaaaaacc ccggagtctt cctgatccat ggacccgatg aacatagaca 540
 caggaagtgc acaaatgggt gctaccatag tagatgcttt ggataccctt tatatcatgg 600
 gacttcatga tgaattccta natgggcaaa gatggattga agacaacctt gatttcaagt 660
 gtgaattcan aggtgtctgt gtttgaaagt caacattcna gtttaattgg agggctactt 720
 gcancaata 729

<210> 3916

<211> 676

<212> DNA

<213> Homo sapiens

<400> 3916

ttggtctact gggttattct taaacaaggc tttgtccaag gacatttggc tcgcaggcac 60
 agagctgatt aactcgttat gtatcttttg ataataaggc agcgatcatt aagaaaaacg 120
 tgtagccaat gaaataacat gttctgggcc ccaccactgg actgggaggt gcagcgcac 180
 caagcagagg ctgcctcctg cctccacgc ctgctgctct cgcaggcagg ggctctgctg 240
 cttacagcag tgcggccatc tcggcttctc tccacatcgt ctgtcacgcg ctggtcccca 300
 ccatacctct cgccaccccg tgcctctgtc cccgtgcggc ctgaggagct ccagctttcc 360
 ctgccagcgg tgctctggga gtggggacgt gatgcagggc gagcatgatg caacggggca 420
 cccagaccc tttccctccc tggggggagg ggtgtggcac gcanaggggc agagggcggg 480
 gacactggcc ccgtggggga agaaggtgct gtcacagccg ttactgtccc ccgtgggacc 540

cancctggag cccccatcc tttggctcct gcctgtggcc actcagctct caagtgggca 600
 catgcacatc ccctgtcct tccctngca nctgccctgc ccaatggnet ttctggtccc 660
 agctactgaa accggt 676

<210> 3917

<211> 762

<212> DNA

<213> Homo sapiens

<400> 3917

aaacaaggga agcaagccgt ccaaaatcca gggttcctag agccgtatct cagaatttta 60
 tgcacacagg ttgcagttaa gtcttgctca aagttttctg ggagaactaa gaactttcat 120
 tgttaatgga agtgtggcaa ttggagcagg tgacaaagaa caagcccttt cgagtcccc 180
 cttcattcac tccacacatg ggttgccttt ggcgtctggg ccacttggtc tccaatggta 240
 gcagaacaca gcaagaatcc atgtgttctg cctgggtggct gtgtgtggtt ggcctcctgg 300
 gggcctgcgg gctgggcatg gacgccgtgg aggacactcc ctgtgctaga ctggctggag 360
 cgaggggcaga tagagtggac agggcttgga cattctggat gaagagccag tggcctcagg 420
 gcagaaatga caccagggtta actcatcaaa atgtgcctcc caaggctcta gaaaatccct 480
 ggtanggtct gtgtggcctt tgcaggagca tctggcccat ctggaggtgg gtttgagggg 540
 acggggccac aaggaaatgg aaacagtagt ggggttcaca tgtgcgaaca ttcacaagat 600
 gccaaagtag gcactcgga caatccgctt antagctctc atccaagacc acgtgcaacc 660
 aatgatgaag gctangatgg gggatgcggt caagggcact agccttgaaa agggggggaca 720
 agggagaanc ttcaaaaaca agtggnggaa aggcataaac aa 762

<210> 3918

<211> 698

<212> DNA

<213> Homo sapiens

<400> 3918

ttggcggggg ccgtgccggg cgccatcatg gacgaggact actacgggag cgcggccgag	60
tggggcgacg aggctgacgg cggccagcag gaggatgatt ctggagaagg agaggatgat	120
gcggagggtt agcaagaatg cctgcataaa tttccaccc gggattatat catggaaccc	180
tccatcttca acactctgaa gaggtatfff caggcaggag ggtctccaga gaatgttate	240
cagctcttat ctgaaaacta caccgctgtg gccagactg tgaacctgct ggccgagtgg	300
ctcattcaga cagggtgtga gccagtgcag gttcaggaaa ctgtggaaaa tcacttgaag	360
agtttgctga tcaaacattt tgacccccgc aaagcagatt ctatffffac tgaagaagga	420
gagaccccag cgtggctgga acagatgatt gcacatacca cgtggcggga cttttttat	480
aaactggctg aagcccatcc agactgtttg atgctgaact tcaccgttaa ggtangaaga	540
gttctagagt taaggagaaa agtgtttatg aatgtttatt tttggttgtt ggtctgtttc	600
ctttgacagt tcatatttgc tttttttcca taaaggtctt tattgnttta atttcataaa	660
gccttacact gaagaaagaa aagtggnaaa aatttgn	698

<210> 3919

<211> 775

<212> DNA

<213> Homo sapiens

<400> 3919

atgacgcgag accccgcccc cgcagcgcgc gcttccaaga tggcggcagc gatgcctgcc	60
cggctgttgg ggtggcggtg acgacaggca gcaaaagacc agctgggtccc agattcgctg	120
ctggagtgtt ggatggagcc tttctctgcc ctctgtgaca tttccaattt tagataatgc	180
ctcacatctc tgtccccccg ggacccccctg gagcccccat gatccctaag aagacagctt	240
gaacctagat ctacccccca ggatgtttgcg gaggtgtctg gagcggcctt gcacgttggc	300
cctgcttgtg ggctcccagc tggctgtcat gatgtacctg tcaactggggg gcttccgaag	360
tctcagtgcc ctatttggcc gagatcaggg accgacattt gactattctc accctcgtga	420
tgtctacagt aacctcagtc acctgcctgg ggccccaggg ggtcctccag ctctcaagg	480
tctgccctac tgtccagaac gatctcctct cttagtgggt cctgtgtcgg tgtcctttag	540

cccagtgcca tcactggcag agattgtgga gcggaatccc cgggtagaac cagggggccg 600
gtaccgccct gctgctctac cacctgcacc ctttcttgca gcgccagcag cttgcttatg 660
gcatctatgt catccancaa gctggaaatg gaacatttaa caaggcaaaa ctgttgaacg 720
ttgggggtgcg aaaagnccctg cgtgattaaa aagtgggact gcctgttcnt gcaac 775

<210> 3920

<211> 910

<212> DNA

<213> Homo sapiens

<400> 3920

aggggggtggc gctctccgtt cggcggcgct cccatggcgc acattaccat taaccagtac 60
ctgcagcagg tgtacgaagc catcgacagc agagatggag catcttgtgc agagttgggtg 120
tcttttaaac atcctcatgt tgcaaaccce cgacttcaaa tggcctctcc agaggagaag 180
tgtcaacaag tcttgaacc cccttatgat gaaatgtttg cagctcattt aaggtgcact 240
tatgcagtgg ggaatcatga ctcatagag gcatacaagt gccagaccgt gatagtccaa 300
tcattcttgc gagcattcca ggcccacaaa gaagaaaact gggctctgcc tgtcatgtat 360
gcagtagcgc ttgaccttcg agtgtttgcc aataatgcag atcaacagtt ggtaaagaaa 420
ggaaaaagca aagttgggga catgttggaa aaagcagcag agttactgat gagctgtttc 480
cgggtctgtg ccagcgacac ccgtgctggt atagaggact ctaagaagtg gggcatgctg 540
tttctgggtga accagctgtt taaaatctac ttcaagatca acaaactcca tttatgtaaa 600
cccctaatta gagcaattga cagctcaaac ctgaaagacg attacagcac tgcacagaga 660
gtaacataca antactacgt tggacgcaag ggctatgttt gacagcgatt ttaagcaagc 720
tgaggaggta cctgtcaatt tgcctttgag cantgtcacc gttctagtca gaagaacaaa 780
nnggatgatt ctgatcaatt gcttccagtt aaaaatgcta ttgggggtcaa atgccactgt 840
gggagccccc gaaaaagttt caccgggatg caattttgcg gaagntaacc anaacttttt 900
aaccnaaggg 910

<210> 3921

<211> 666

<212> DNA

<213> Homo sapiens

<400> 3921

```

aaaggccgga ccagaatatg gccaaaggat gaaccctatt agccgcctgg cgcaaattca   60
acaggccaaa aaggaaaagg agccggatta tgttttgctt tcagaaagag gaatgcctcg  120
acgtcgagaa tttgtgatgc aggtgaagggt aggcaatgaa gttgctacag gaacaggacc  180
taataaaaag atagccaaaa aaaatgctgc agaagcaatg ctgttacaac ttggttataa  240
agcatccact aatcttcagg atcaacttga gaagacaggg gaaaacaaag gatggagtgg  300
tccaaagcct gggtttcctg aaccaacaaa taatactcca aaaggaattc ttcatttgtc  360
tcctgatgtt tatcaagaga tggaagccag ccgccacaaa gtaatctctg gcactactct  420
aggctatttg tcacccaaag atatgaacca accttcaagc tctttcttca gtatatctcc  480
cacatcgaat agttcagcta caattgccag ggaactcctt atgaatggaa catcttctac  540
agctgaagcc ataggtttta aaggaagttc tcctactccc ccttggttctc cagtacaacc  600
ttcaaaacaa ctggaatatt tagcaaggat tcaaggcttt cangtatgaa ttaaaagcaa  660
nancaa                                           666
    
```

<210> 3922

<211> 786

<212> DNA

<213> Homo sapiens

<400> 3922

```

aagctggact taaagagttc aaattggagc tggaattgct ctaagcaatt ccagggcctt   60
gcaattttac aattaaggaa gacttaaata tatacatagt cagggtggca aggtaaaagg  120
aggtctgatt tcctctgcga tgttcttcag ctaagaccta aattctgaaa ccgttaaaac  180
ctgaagtgcc tttaaataata ttatttcac agagccccag gttcattgtg tcacttatca  240
aggtctgatt tagggtcctc aaggactaat cttgtagtg tttaaaagca actaggtttt  300
    
```

gtttttggca ttttagttcc atcttctaga ttctgttgtc ttgcagatag agatcaggga 360
 gcccagctac acattcattc ttctagtccc ttgtactcat tgtatttcct tctgccttag 420
 ggcccttagtt tgtgctgttc cctgtaccag gaactctctt tgctgtttct cggtttcttg 480
 ctcaaagtgc acttcaagga aggctttcct gactgacttc ttatttttta agttgttaca 540
 acattgtgta cctttgtttt atagcactta catttatttc tatgaatatt tccttaatgc 600
 ctatattcct tcctaaatcg taaagctgca cnagagcang atcatttgtg tctgccttac 660
 taaccttttc atcctgagtg cctggcaaaa gtgcttggtta nctggattga tacttaataa 720
 atatttgcta agcaaagtga nggtaacctc aaatccaagg gcnaagtcaa gctccaagga 780
 attcca 786

<210> 3923

<211> 656

<212> DNA

<213> Homo sapiens

<400> 3923

gcgacacccat ggacttatgc ttatctcttc aagtatatca tcatcggaga cacagggtgtg 60
 gggaagtcac gtctcctcct gcagtttaca gataagcggc tccagcctgt ccacgacctc 120
 acaataggtg tggagtttgg agctcgtatg gtcaacattg atggaaaaca aatcaaactg 180
 caaatctggg atacggggag cagctggagc actgctgggtg tacgacatta caaggcgtga 240
 aaccttcaac cacctgacct catgggttaga ggatgcccggt cagcactcta gttccaacat 300
 ggttatcatg ctcatggga ataagagtga cctagagtcc cgcagggatg tgaagagaga 360
 agaaggagag gcctttgcta gggagcatgg acttatattc atggaaactt cagccaaaac 420
 agcctgcaat gttgaagagg ccttcattaa cacagccaaa gaaatatata ggaagatcca 480
 gcagggttta tttgatgtcc acttcccact aagaattagg gtcaaagaca ttctatttga 540
 acacttgcaa ttacctagat ctaattggnc tttgntgat agattctctg cctcgnatt 600
 tcattgagtt ttttctctcc ttgcctttgg gtgtctgctt gccacttcct aaagaa 656

<210> 3924

<211> 821

<212> DNA

<213> Homo sapiens

<400> 3924

```

gcttcctcgt tgccccgcc gcgggcgcga gatggattcc ggggtgctggt tgttcggcgg 60
cgagttcgag gactcgggtgt tcgaggagag gccggagcgg cggtcaggac cgcgcgcgtc 120
ctactgcgcc aagctctgcg agccgcagtg gttttatgaa gaaacagaaa gcagtgatga 180
tggtgaagtg ctgactctca agaaattcaa aggagacctg gcctacagac gacaagagta 240
tcagaaagca ctgcaggagt attccagtat ctctgaaaaa ttgtcatcaa ccaattttgc 300
catgaaaagg gatgtccagg aaggtcaggc tcggtgtctg gctcacctgg gtaggcatat 360
ggaggcgctg gagattgctg caaacttggg aaataaagca accaacacag accatttaac 420
cacggtactc tacctccagc ttgctatttg ttcaagtttg cagaacttgg agaaaacaat 480
tttctgcctg cagaaactga tttctttgca tccttttaat ccttggaact ggggcaaatt 540
ggcagaggct tacctgaatc tggggccagc tctttcagca gcacttgcgt catctcagaa 600
acagcacagt ttcacctcaa gtgacaaaac tatcaaatcc ttctttccac actcaggaaa 660
agactgtctt ttgtgttttc ctgaaacctt gcctganagc tctttaattt ctgtggaagc 720
gaatagcaat aatagccana aaaatgagaa agctctgaca aatatccaaa aactgtttgg 780
canaaaaaga gaagaaacaa gtggttgata anagaactca a 821

```

<210> 3925

<211> 635

<212> DNA

<213> Homo sapiens

<400> 3925

```

tattatagac cataatatgc ctgtcataag cagactgttt ttgttgactt tcttgacctt 60
ctggggtagg tagtgccacc tccttggaag aaagatcctt ttcgtgatgc cagggcaatg 120
attaacacat ggaaaattgg agcaaatgaa actgcaatta atactgctca aacagattgc 180

```

agagtatgat gaagaacttg gatgtcattt tattgcagcc tctcctgggg acaccattat 240
 tttatcacct ttgacttttg gatgtatagc tccatttgac atctcttgtc tttccttgct 300
 ttctttcttt attcttccca gtgggagtta gatgaagaat gtctggcttg cagaagccag 360
 acttggccat tctgggagat gtgcagactt tcagattggc ttgacagtc ttacagagct 420
 gttcccagga tatgaagcac agctgcaaag caggcagttc ggctttgcct tctcttactt 480
 tcaagatgtg tgatgggang cggggaacat acaaccccca gctgcttaaa ctcttcttta 540
 tccagaattc cccttccttt anctttggga ggcttcanat atcactcagt tgactgatta 600
 aatatcaagg gataggaatc tatccccaag ggngg 635

<210> 3926

<211> 756

<212> DNA

<213> Homo sapiens

<400> 3926

aaaactaatg actgagcaca aacctgttga agatgcagtt cttcttggta gcctaaatag 60
 gattatcttg gacctaagat agtgaccttg ttttttttc ttaatttttc cattgaaata 120
 catggcctta aggaaatatg caaaaaaaaa aaaaaatgaa cctggaaaaa aaaggtcctg 180
 gaccaggtgg atgcctcata tattaagaaa tccccgaggc cgggtacagt ggcttacgcc 240
 tgtaatccca gcactttggg aggccaaggc gggcggatca cgaggtcaag agatcgagac 300
 catcctggct aacacgggtga aacctgtct ctactaaaaa tataaaaaat ttggtgggcg 360
 cctgtagtcc cagctacttg ggaggctgag gtaggagaat ggcgtaacg caggaggtgg 420
 agcttgcggt gagtggagat tgcgccaccg cactccagcc tgagcgacac agcgagactc 480
 cgtctcaaaa aaaaaaaaaag aagaagaaaa agtatccccg gtactattca aatggaactt 540
 tatcactaat aancacaagg gaagaccatg ccccatgtta gcaatgcaaa ttattgctac 600
 agctgcctaa gataatttgg nccttagttg ataatatnca agagaatgtg gacttctaag 660
 tccctttgcc ttgcatcctc tgtttcaaat ganttaaagg ggttgtgtag ggaaagcaag 720
 ttantaaaac ttaggagaaa nccttcccaa gattta 756

<210> 3927

<211> 669

<212> DNA

<213> Homo sapiens

<400> 3927

```

tggtgaggga agagagagac cctctcatat tgttttatac tcagaaaaga aaagagaagc   60
aaaactaaag gcaggtagcc tggcacctag gaacagaccc aaaaccaagg aaccagaccc  120
gaaaccaggc ctgggcctgc ctgacctaaag cctagtagtt aaaattctac ccctgacctt  180
gcaactgatg ttatctctag attatagaaa gacattgtaa aacttcccgg tctgttctat  240
ttcactctga ccaccgttgc atgcagcccc tgtcacgtac cccctgcttg ctcaatcgat  300
catgaccctc tcacgcggac ccccttaga gttgtgagcc cttaaaaggg acaggaattg  360
ctcactcggg gagctcgat ttttaagacac tagcctgctg atgctcccag ctgattaaag  420
ccactccctt cactatcttg gtgtctgagg ggttttgtct gcggcttgtc ctgctacatt  480
tcttggttcc ctgaccagga agcgagggtga ttaacggatg gttgaggcag ctccttanga  540
gacttttagc tgccctgtgg aacatccctg cgggggactc caaccagcca aagcaacgcg  600
gatcctgana gtgtccttgg gtangcactt gccctgatgg gacgccttgc caaagcantg  660
tgtggaagg                                     669
    
```

<210> 3928

<211> 755

<212> DNA

<213> Homo sapiens

<400> 3928

```

aaaaaaaaaa aaaaaaaggt ttgtctccgc tgtttcatct ctatggctgt cagaggtggg   60
cggctttgac cgagaggctg ctggagctcg tgtttgacg cgatgtttcg tctgaactca  120
ctttctgctt tggcagaact ggctgtgggt tctcgatggt accatggagg atcacagccc  180
atccagatcc ggcgaagact aatgatgggt gctttcctgg gagcatctgc agtaactgca  240
    
```

agtactggtc ttttgtggaa gagggcccat gcagaatctc caccatgtgt agacaaccta 300
 aaaagtgaca tcggtgataa aggggaagaat aaagatgaag gggatgtttg taaccatgag 360
 aaaaagactg cagatcttgc ccctcaccca gaagagaaaa agaagaaacg ttctggattc 420
 agagacagaa aagtgatgga atatgagaat aggattcgag cctactccac gccagacaaa 480
 atcttccgat attttgccac cttgaaagtc atcagtgagc ctggtgaagc agaagtgttt 540
 atgacaccag aagattttgt gcgatccata acaccaatg aaaaacaacc agaacacttg 600
 ggtctggatc aatatataat aaaacgcttt gatggaaaga aaatttccca ggaacgagga 660
 aaatttgctg atgaaggcag tatattttac acccttggag aatgtgggct catatccttt 720
 tcagactaca ttttctcan aantggtcnt tccaa 755

<210> 3929

<211> 714

<212> DNA

<213> Homo sapiens

<400> 3929

aattagaact ggaaagaaat cggaagcgac tagagactct gcagagtgtc aggccatgtt 60
 ttatggatga gtatgagaag actgaggaag aattacaaaa gcagtatgac acttatctgg 120
 agaaatttca aaatctgact tatctggaac aacagcttga agaccatcat aggatggagc 180
 aagaaagggt tgaggaagct aaaaacactc tctgcctgat acagaacaag ctcaaggagg 240
 aagagaagcg cctgctcaag agtggaagta acgatgactc ggacatagac atccaggagg 300
 acgatgaatc cgacagtgag ttggaagaaa ggcggtgcc caagccacag acagccatgg 360
 agatgctcat gcaaggaaga cctggcaaac gcattgtggg cacgatgcaa ggtggagact 420
 ccgatgacaa tgaggactcg gaggagagtg aaattgacat ggaagatgat gatgacgagg 480
 atgacgattt ggaagacgag agcatttctc tctaccaac caagcccaat cgaagggtcc 540
 ggaaatctga acccctggat gagagtgaca atgacttctg acccttttgc caagggaccc 600
 tggcagatta aaaccctcag acttgtaggt aaatgggaac ttanaagggt aggaaggtaa 660
 nccctgtttt gtttactaag ctgntggac tcatgatcac tgaagcaata cttta 714

<210> 3930

<211> 632

<212> DNA

<213> Homo sapiens

<400> 3930

```
gtgcccagct gagagcagca ccaacaccac ccaggatgag cagcgcaggt ggccaggctg   60
tgaccagcag gacgagatgc tcaacctggg cttcaccatt ggttccttcg tgctcagcgc  120
caccaccctg ccactgggga tcctcatgga ccgctttggc ccccgacccg tgcggctggt  180
tggcagtgcc tgcttcactg cgtcctgcac cctcatggcc ctggcctccc gggacgtgga  240
agctctgtct ccgttgatat tcctggcget gtccctgaat ggctttggtg gcatctgcct  300
aacgttcact tcactcacgc tgcccaacat gtttggaac ctgcgctcca cgттаатggc  360
cctcatgatt ggctcttacg cctcttctgc cattacgttc ccaggaatca agctgatcta  420
cgatgccggt gtggccttcg tggtcatcat gttcacctgg tctggcctgg cctgccttat  480
ctttctgaac tgcacctca actggcccat cgaagccttt cctgcccctg aggaagtcaa  540
ttacacgaag aagatcaagc tgagtgggct ggnccctggac cacaangtga caggtgacct  600
cttctacacc catgtgacca ncatgggcca aa                                632
```

<210> 3931

<211> 776

<212> DNA

<213> Homo sapiens

<400> 3931

```
atcaagcagg ggcagggctg gcgctgcggc gggagatgct gtcgggccgc ggcggcgctt   60
ggcagccagg agctctgcat tgaaggcact ggggtaaagt gaatgccgaa gacagaagat  120
ttggatgata caccactgac tttctttgtt tggaatacac gttatgaacc ctttctggag  180
catgtctaca agctctgtac gcaaacgata tgaaggtgaa gagaagacat taacagggga  240
cgtgaaaacc agtcctccac gaactgcacc aaagaaacag ctgccttcta ttcccaaaaa  300
```

tgctttgccc ataactaagc ctacatctcc tgccccagca gcacagtcaa caaatggcac 360
 gcatgcgtcc tatggaccct tctacctgga atactctctt cttgcagaat ttaccttggt 420
 tgtgaagcag aagctaccag gcgtctatgt gcagccatct tategctctg cattaatgtg 480
 gtttggagta atattcatac ggcatggact ttaccaagat ggcgatatita agtttacagt 540
 ttacatccct gataactatc cagatgggtga ctgtccacgc ttggtgttcg atattcctgt 600
 ctttcaaccg ctagttgatc ccacctcaag tgagctggat gtgaagagag catttgcaaa 660
 atggaggcgg naccataatc atatttggca agtattaatg tatgcaagga gagttttcta 720
 caagattgat acaagcaaag cccctgaan ccaaaaggct tgcaagtact ggtntn 776

<210> 3932

<211> 733

<212> DNA

<213> Homo sapiens

<400> 3932

aagggctcgc agcggccaga aacccggctc cgagcggcgg cggcccggct tccgctgccc 60
 gtgagctaag gacggctcgc tccctctcgc cagctccgaa tcctgatcca ggcgggggcc 120
 agggggccct cgcctccct ctgaggaccg aagatgagct tctcctcag cagccgctct 180
 tctaaaacat tcaaaccaaa gaagaatatc cctgaaggat ctcacagta tgaactctta 240
 aaacatgcag aagcaactct aggaagtggg aatctgagac aagctgttat gttgcctgag 300
 ggagaggatc tcaatgaatg gattgctgtg aacactgtgg atttctttaa ccagatcaac 360
 atgttatatg gaactattac agaattctgc actgaagcaa gctgtccagt catgtctgca 420
 ggtccgagat atgaatatca ctgggcagat ggtactaata ttaaaaagcc aatcaaatgt 480
 tctgcaccaa aatacattga ctatttgatg acttgggttc aagatcagct tgatgatgaa 540
 actctttttc cttctaagat tgggtgtccca tttcccaaaa actttatgtc tgtggcaaag 600
 actattctaa agcgtctgtt cagggtttat gcccatattt atcaccaagc actttgattc 660
 tgtgatgcag ctgcaaagan ganggccaac tcaacacctc cnttaagcac ttttaatttc 720
 cttgggtcaag gag 733

<210> 3933

<211> 762

<212> DNA

<213> Homo sapiens

<400> 3933

```
tatgaaatgt ttcattattga aaacacaaga tgacctttct aatgagctgt atgagaggtg 60
aatctcctca ctgtcactgc catagccaag catcctcatg agagttagca catcggcaca 120
gcatgcatcc agctctggag gccacgggtgc aggcatactg gcctgctgct ctggcagagg 180
ccagtaaata cagttcctag aagcagcctt tgctgtcttt ttacactgta tgcggtttgg 240
aaatgaatgt agaaacttac tgtgggcatt tacctttctg tgccagtttg gcttttattg 300
cctgaacctt atgctgacct ggagaggaga tgggggacag tgctgtttgt gggccagcag 360
tgaatctgta tgcggagagt tgtgtttgtc tgatgtggcc gttggtggtc aggtaaagagg 420
ctcggcacct tcttgaaga aatcatgtct gaggggtgtac gtttgatatg atcatgccag 480
attggagaag atccaagcca ggaagatggg cttgaagcaa actgcattat caggagtacc 540
ttggtgagag gatcagtgtg aatcctaata ggtacaaaga cttttgtgtt ttggctttgt 600
cacagattta ttgaaaaact tttttgcttc tgcttcattt tttagcattt tagtttctgg 660
ttttcatttt tggngaatec ttgcctttta aactcgtggn ttttctctca tttcttccc 720
tctctccctc catctctgac canccccaac ctaaccccc aa 762
```

<210> 3934

<211> 749

<212> DNA

<213> Homo sapiens

<400> 3934

```
aaaccgagtt ctggagaacg ccatcaagct cgctgcttaa aattaaacca caggttccat 60
tatgggtcga cttgatggga aagtcacat cctgacggcc gctgctcagg ggattggcca 120
agcagctgcc ttagcttttg caagagaagg tgccaaagtc atagccacag acattaatga 180
```

gtccaaactt caggaactgg aaaagtaccc gggatttcaa actcgtgtcc ttgatgtcac 240
 aaagaagaaa caaattgata agtttgccaa tgaagttgag agacttgatg ttctctttta 300
 tgttgctggt tttgtccatc atggaactgt cctggattgt gaggagaaag actgggactt 360
 ctcatgaat ctcaatgtgc gcagcatgta cctgatgata aaggcattcc ttcctaaaat 420
 gcttgctcag aaatctggca atattatcaa catgtcttct gtggcttcca gcgtcaaagg 480
 tgggtctgtc tccttccgag gactgcatg ctcatcacg cacatcatta agagctctgc 540
 gtttgggaaac aggcatagca gagattataa tttcaagtat tgaaatgatt tcaaaactgc 600
 ttttttcaaa attggtatta agttccttaa ccacagatct tttgctctcg atgtgagcca 660
 gtggtaaaat taaattaata tgtgggggta tttttgccct cccttttant ctttctaatt 720
 ggncatggna aatgaacatc aaactggga 749

<210> 3935

<211> 784

<212> DNA

<213> Homo sapiens

<400> 3935

gtgcaaagt ctgggttctg ggtttctgga ttccgaggcc gttcacacgt agcctgtgcc 60
 ggctcctcgg gtgagtcctg ccgcgcgcgg tgccccggga cggcctaggc tgccgggggt 120
 ccggggcccc aggcattccg ggctgcagat tgacggggat cccggatgca ccgcgcgccc 180
 ccgcgcctc accgacgggt ccagacctgg tgggaagaag gtgcggggac gggtccttga 240
 ggatcccgat gcctacgagc caagatgctc agctttatag gtgtgacct ccatgtgac 300
 ttcacctcag ttttgtgata cgtaaaatgg acaaattcga agctacttca cagtgtgttt 360
 gagaggatta aatgaaacaa tgcttgtaaa gctctttgca ggaggagacc tcggaagcag 420
 ggcttgcccg gcagagcaca cctgctgtca ccagggacca caggcagcat gaagaccccc 480
 gtggagctgg ccgtcagtgg gatgcagacc ctccgccttc agcaccgctg ccgaggtggc 540
 taccgggtca aggccaggac gtcataatgt gatgaagact ctgtttggca gcccaacang 600
 caccggcct accccaccgg acttcgattc gccctgggtg gagaaggcta acagaaccag 660
 aggcgtgggc aagganggca tccaagggcc ttggggggca aaagggaag cttgtgagaa 720

ccaacccccct caaaggggggc aannaacccc caaccctcaa aaccaaaggg aaagaangaa 780
 acaa 784

<210> 3936

<211> 99

<212> DNA

<213> Homo sapiens

<400> 3936

acctgatgtg ttnaaagcac ttcainaggc cccggttttc ctttggcttc tgcttttcag 60
 tgantgggat gactgcctat gtgggtggca atgccaccc 99

<210> 3937

<211> 688

<212> DNA

<213> Homo sapiens

<400> 3937

tggtcttgca caagacttca gatagggccca caattatggg agctggaaag aatctggctc 60
 ccttaccacc agtgggtcct ttcccctgcc tcacaggcat gcacatgctc tctctgtagg 120
 taaaaagtac agcatctggc ttagcttcag atacttcag ttttctaaag accagtgttt 180
 tgaatgcttt ttgttactta ggtaagctcc atcaactgta aaataagtat tgggtggattt 240
 atggatttca aaaggcagaa caactaacat actgaattcc tgattccagt ctatgttcta 300
 ctggagttgt cagaatgccca aatgctaacg caaacagtgc ttttttcttc taaaaggagg 360
 aaagagggtg ggaatgagag gatgaattcc tatcagttta ggaggatgtt gccattggga 420
 gttcttgcgt aatttgagat tgtaaaacct agaaggtttc ttgtctttgt tatgtangag 480
 gaaacaggaa ttcttggttt aacttaggct gggcctggga agagtttgct gtttacaatg 540
 agatctaacc ccttattgga gatgatatta aaaatctctg gccacctcta tgggcatctt 600
 tggcaagatc tgcatttgnn atttaatagc aaccacattt attaaagcaa agaaatttcc 660

ctcaattgnt gtcccaagta ntccaata

688

<210> 3938

<211> 796

<212> DNA

<213> Homo sapiens

<400> 3938

gtccacctc cgcccatgg acagtagatg accgttaatg gcttttaagg aaagatgcaa	60
cctggaaaaa aataaaaaaa acttgtttta gaatggtaac cactggcaat atgaagaata	120
attagactaa agaagagagg taggataatc atgggcattg gcagtggaat tgaaagagta	180
atttcagaag cagaatggtc agatgttggg ggtgattggt tatagagttt aagaattgta	240
ctgattttct attgtgtaac aaactacccc aaaacttaat ggcttaaagc aactattatt	300
tctcctgatt ctgtggttga ctggatggtc gtctgctgct cttgcttaga cttaggcatc	360
tgcatttagc tgagggttca gccagggctg gacatccttt aatggcctca ttcccatgtc	420
tggggcctca ggtcagatag ctgggactac cgggtctcac tccagaagag gcttcttcag	480
agcatggtag tcttgggggt ctaagagaat gagagtagaa gctgcaaaac ctcttgaaac	540
tggggcttgg gagtcacaca tgactttctc cacattctgt tcgtcaaaag cgaatcataa	600
ggacagcaca gactcaaggg ataagaaagg agattccatc tcttgatgaa gaagagctgc	660
aaagggcata tttaatcagt cacangagtc taatgctaca aagtagtttt ttaaaaagat	720
gactagattg gcaagttcaa gggtaatcct ttttaattggt ttaattanat atcacttagc	780
tggnantcag taaagc	796

<210> 3939

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3939

gaataaatta gaggggatct cggtgcgaac tttccttgac ctcgacccca aagaggcttg 60
 ctggggccga gaagaaaacc cgtgcgggat gtggaggggc ccggggcgcc ggggtcccc 120
 gcccgcgaga cccgctccac caggcgcctt ggagagcagc gccagcggtc gtcctccagc 180
 tcccgcaggg gtcgccccgc cggcgcgagg gacacaatgg gtccgcgggc cacgcgaacg 240
 ggccctcggcc cggcggcagc acgggagaga tgtgaggagc gcgcggaagg ggagcgcggc 300
 cggggagatc ccagcgcggt caggcccggg agccgaggct cgggggcccg ggaactgggc 360
 ttccacacgc agaagaccca acaaagacac caggggagcc cggcgggctg ggcgcgagaa 420
 gacgtggtag caggttcgct cctccgagca gacgggaggc gccatcatgg gggggggggg 480
 gtcnnn 486

<210> 3940

<211> 607

<212> DNA

<213> Homo sapiens

<400> 3940

gaccctgttt caaagagaaa aaaaaaaaaag ctggagagga gagggggcag gtttgtggca 60
 ggggtggctgc agtggccatg gggaggtgtt tggacctggg ggttggagac agctccatga 120
 gccctgctga ggatcatggt agccaggctg ggatcctggg cccagagcag tgctggctga 180
 cacataggtc tgtggcccag gtgtggtcta cgacacgttc atgctaaagc accagtgcac 240
 gtgcgggaac acacacgtgc accctgagca tgctggccgg atccagagca tctggtcccg 300
 gctgcaggag acaggcctgc ttagcaagtg cgagcggatc cgaggtcgca aagccacgct 360
 agatgagatc cagacagtgc actctgaata ccacaccctg ctctatggga ccagtcccct 420
 caaccggcag aagctagaca gcaagaagtt gtcggcccc atcagccaga agatgtatgc 480
 tgtgctgcct tgtgggggca tcggggtgga cagtgcacc gtgtggaatg agatgcactc 540
 ctccaagtgc tgtgcccatt gcaatgggct gcctgctgga nctggncctc aaggtggctg 600
 cangaga 607

<210> 3941

<211> 646

<212> DNA

<213> Homo sapiens

<400> 3941

```

gaagcgcgct cccggggagg tgttcagcc atggctacgg cagccggcgc gacctacttt 60
cagcgaggca gtctgttctg gttcacagtc atcacccctca gctttggcta ctacacatgg 120
gttgtcttct ggcctcagag tatcccttat cagaaccttg ggcccctggg ccccttcact 180
cagtacttgg tggaccacca tcacaccctc ctttgcaatg ggtattggct tgcctggctg 240
attcatgttg gagagtcctt gtatgccata gcattgtgca agcataaagg catcacaagt 300
ggtcgggctc agctactctg gttcctacag actttcttct ttgggatagc gtctctcacc 360
atcttgattg cttacaaacg gaagcgccaa aaacaaactt gaagttgtct gaaagcttgc 420
tctacacttt tacattcatc ctcacccttt tttttgtggg gtanaggagg tgcagtaatt 480
tactcagtga tctttctact ttctagaaac tgtccttcaa agctctttaa gacccccctg 540
ttagtcagtt tcttctctta tatgctctgg ttgagcttga atanaccagt tgttacttaa 600
gaaagaaaca gnnaagatt ttagcttttc aatcctatth ggcaaa 646

```

<210> 3942

<211> 654

<212> DNA

<213> Homo sapiens

<400> 3942

```

gaagaaaaag gggtgcccaa acaagtcacc ttaaaatttg atgcctgtgc tgtcattaat 60
agtaataagt taggaataaa gtgtggttct cttattaga aaagaggcta tatggcagaa 120
aataagtaca tctgtcataa attaggactg tgtggaaata aatgtaaata ctggtcttgt 180
gtcatttagg ccacttgat taaaaaaaaat gaaaaggatc cagtccacct tcagaaagga 240
aaaaaatggc ccttcctgtg ctaagggaca atgtaacccc ttagagctag taataaccaa 300
tccccttgat cctcgtgga aaaaagagta gcgtgtgacc ttaggaatca atggggctgg 360

```

actgaatccc cgagtaaata tcttggttcg aggagaagtt tacaaatgct ctcttgagcc 420
 agtgtttcaa actttctatg atgaactaaa tgtgccaata acagaatttc caggaaaaac 480
 aagaaatttg tttttgcaat tagccgagca tgtagcccag tctctcactg tcacttcatg 540
 ttatgtatgt ggaggaactg taatancaga tcaatggnca tgggaagccc gagaattagt 600
 acctacagac ccagttccct gatgaantcc agctcaaaag aatcacccctg aaaa 654

<210> 3943

<211> 682

<212> DNA

<213> Homo sapiens

<400> 3943

aacaccctcc tggaggatgc tggtagagagg cagggaccag ggggtccggct cccggctcgg 60
 gcctatcggt aggcgctggg cccccaggcc ctctcctttg cagagtctcg ctgcctccct 120
 cgacgcagag ccttcaagcg ccgcagtcctc cgacggcttc cccgcggggc ccaactgtctc 180
 cccaagacgc ctggcgaggc cgccgggggct ggaggaggcg ctgagcgcg c tggggctgca 240
 gggagaacgc gactacgccg gggacatctt cgccgaagtc atggagtacc tgggtctggc 300
 tggtagacaca ctttatctgg cggttcacct gcttgattcc tacctgagcg ctggcccgct 360
 gcgtctacat cgcctgcagc tgctgggcgt ggcttgccctg tttgtggcgt gcaaaatgga 420
 agagtgcgtg ctccccagg aaactgaggt ccggaacttg gggcctttcc agggcaagga 480
 gtaaagagcc cggattcaag actccttcaa ctccccccgc atcccccatc tgcancgccg 540
 ctctctctgc ctctgancg cggactcctt ctacgggcg gagctgctgc gcgccgancg 600
 tcgcatcctg agccgcctgg atttccggct gcaacaancc cgggcccgt gctgttgcc 660
 ccgggctgct gggccnccct gg 682

<210> 3944

<211> 556

<212> DNA

<213> Homo sapiens

<400> 3944

```

ttgaggtcac accttcagtc cttcgagcaa atatgcctct tcatgttcga cgcagtagtg 60
accagctctt aattggcctc tccacttctg tcagtgatag taatttttcc tctgaagagc 120
cttcaaggaa aaatcccaca cgctgggtcaa caacagctgg cttcctcaag cagaacactg 180
ctgggagtc taaagcctgc gacaggaaga aagatgaaaa ctacagaagc ctcccgcggg 240
atactagtaa ctgggtctaac caatttcaga gagacaatgc tcgctcgtct ctgagtgcc 300
gtcacccaat ggtgggcaag tggcaggaga aacaagaaca ggatgaggat gggacagaag 360
aggataacag tcgtgttgaa cctgttggac atgctgacac gggtttggag catataccca 420
acttttctct ggatgatatg gtaaagctcg tagaagtccc caacgatgga gggcctctgg 480
gaatccatgt agtgcctttc agtgcctgan gcggcanaac cctgggggta ttagtaaaac 540
gattggngaa aggtgg 556

```

<210> 3945

<211> 689

<212> DNA

<213> Homo sapiens

<400> 3945

```

gtcatttttg tatacttttc ctttcttact tcaggggtgt gtcttcaaga tttctacccc 60
ctatttgcaa tgaatttcat acctatcta aaatacattc atataccaga aatatgaaga 120
gtggcccttc taaaagtttc cctaattgatg gaagctgtca gttgtcctat ctgtgcagaa 180
tgtgagtaat agtggcagaa ataagtgtga caacaatgct ttgcctgttg ttctttttac 240
ttgctaggta atttgtaaag tggggataaa gatgtaggga aagtaaacct ctctctcact 300
gttacggaaa gcctggactt gagttaggta gactgcctta aagaagaaga aatatgtcct 360
tttctttggc atcatggttt tgttgagtgg cagactgttg aagtgagttg agacttaaga 420
acgccagaaa agttgtctag cctggcccca gtagacagaa tttgttcttc tctcaagtaa 480
aaaattacct ttttatagcc tttatattat ttagatgaaa aaataccatt atgaacataa 540
ttccatggcc ctttgtgtac aaagcatatt ttgaattaaa tacctcaagg tccacctaga 600

```


cctctatgga taaaatcata agtttangat ttttanctcc tgtgagtgtt gggggcaaac 660
tacacagaga agacatgggg gtgggntca 689

<210> 3946

<211> 606

<212> DNA

<213> Homo sapiens

<400> 3946

agctctccgc cagtaggagt ttccggaagg agtttgaatt tttgtgattt ttatgcttgt 60
ttggtcggtg gaatatgttg ggatttatgt ttgcctctga acaagtgtct tgctcacatc 120
gtaaatgact ttctctccga aacgctaaat attctttccc gcaggagctc atatccttat 180
tttccatgac ggatcttaac gacaatatat gcaaaagata tataaagatg ataactaata 240
tagttatact gagcctgac atttgcattt cgtagcttt ctggattata tcaatgactg 300
caagcaccta ttatggtaac ttacgaccta tttctccgtg gcgttggctg ntttctgctg 360
ttgttcctgt tctgatcgtc tctaattggcc ttaaaaagaa aagtctagat cacagtgggg 420
ctctaggagg gctagtcgtt ggatttatcc taaccattgc aaatttcagc tttttacct 480
ctttgctgat gttcttcttg tcttcttcga aactcactaa atggaaggga gaagtgaaga 540
agcgtctaga ttcagaatnt aaggaangtg ggcaaangaa ttgggttcaa ggtgttctgt 600
aatgga 606

<210> 3947

<211> 665

<212> DNA

<213> Homo sapiens

<400> 3947

gtaccaactt aatatatgtt atagactaaa tgtttatgtc ctcccaaact tcatattttg 60
gaagccagac atgggtgactc acacctgtaa acctaact ttgggaggcc tagttgggag 120

gattgcttga gtccgggagt tcggaaccgg cctggacaac atggtgagac cccgtctcta 180
caaaaaaaaa aaaaaaattt ttaattagcc aggtgtggtg gcatgcacct gtagtcccag 240
ctactcagga ggcttgccctg agcccagagg tttagactg cagttagcca tgatattgcc 300
agcctgggtg acagagcaag accttgtctc aagaaaaaaaa aaaaaaaatt gccaattgcg 360
atggctcacg cctgtaatcc cagcactagg aggccgaggt ggggtgaatca cctgagggtca 420
ggagtitttga gaccagcctg gccaacgtgg caaaaccccg tctctactaa aaatgcaaaa 480
attaccggga cgtgttggtg agcacctgta atccctgcta ctcgggaggc tgaggcaaga 540
gaatctcttg aaccaggagg gtggagggtg cactgagccg agatcatgcc attggacttc 600
acctgggcaa caagaggga actgtntcca aaaaaaaaaa atttggaggg ctgggcaccg 660
nggnt 665

<210> 3948

<211> 861

<212> DNA

<213> Homo sapiens

<400> 3948

gttgaaagat gtgagacagt attcaagaat aatgaagata ataataatga ttattataat 60
aatgatgatg attccaagga aaaaacctac agcgaatgtt ccatttctac cccgcacgca 120
gacactctcc ctaacactga taacctgagc cccagcact ggacggaaga atgctggcgt 180
ctccgtgtgt actggttcag ggttctggcc ccagccttgt caggaccccc tgggtgtccag 240
agccccacc cctcccga caagcagctg atgccccagt gattctctat acatttttca 300
cctcggccaa tatgtccagg aaaactgctt acttctcttt tcttgccctgg agcttcattg 360
ttcacccctta cgttgcaata taggaattaa tgctacaaaa taaaagtaaa gcttacctga 420
aaagtgcata gtttggggca atggtatcta catctccac tgtgggaaaa ccagcaaagc 480
atcaaaactc tcaattctcc tgttaccgaa tgcagatctg aattataaga tgtttatgtt 540
tgaccattgt ttcaacaatg ggattttgtt acgaattatc cctttaactg aaaccctcag 600
ttttactgtt tacattatta ngaaaacagg gatatctttt gaatctaaaa atttgatgta 660
cagcatgtga ttttgaagt ttacatgtaa agtcacagta taggtgaaat aacgtttgtc 720

atattttgag acgtatcctg gaaaccaatg tttttacgtt nagtggtttt aagtcaaaag 780
 ttcaatgggn aanacaagtc cttttcacia attaaaaagg ggaaaaagg gatttttttt 840
 ttccctccca aaaatggttt n 861

<210> 3949

<211> 878

<212> DNA

<213> Homo sapiens

<400> 3949

tgaaaaacct aaaaagaagg gaaatacttt ctgggtagtg tcagatacat taccctaggg 60
 gaatgtcagt gaggccctcc aacagctatt ccacttgatt gttgcatgag ctaatggcca 120
 taaaactcct tagaaaagca caaagcaaaa ctaaagaaga gtatttacta gtgttgata 180
 tatttgtaaa agtgagatta caaatcatgt atctggctat tttttctta aacatgttcc 240
 ttcaagaatt tttctgttcg ttcatittaa atatttatta aatgttctga tttcttatgt 300
 tcaactgctag ctaattaaca aggatggaat tttcttgcc ttggttatat ctaaaagatt 360
 gtaaaaactt tgagaaagca atgttgccct cttccacag gagtattttg gtagctgtaa 420
 gagaatgcac attgcaaatg actcaaatgt ggtaaaatgt tggtttcata attctgaaat 480
 ggccctcttc ccaaaagtga cagtaacacc ctagctccag gctcaaccac atccagcaca 540
 tagccaacat ttaacagatg ttgacaaaat agttaataat aatattatta aggaaccagc 600
 cagagtttca tgcttattaa atactttttc aaccagaagg tctgcaaagg ttgatttctg 660
 aatatgacgt tagctctctc tagacctatt aatttacgac atttcaaac agaggtaaac 720
 cagcagacct attanttttc aatgataaac tataaacagt ttttgaantc aactaattcc 780
 tttcctttta attgggcaga attcatcagg aagtcagaca accaattata aangctcctc 840
 atangcaatt ctcacctcac cactgagtaa attaaatg 878

<210> 3950

<211> 452

<212> DNA

<213> Homo sapiens

<400> 3950

```
gtatgcaaat gtagcggcgc ggcgggagcg cgcggctgat acccgggact gggctgcggc 60
ggttagtcct ctcccggccg ccgtgcctc cgacatattg cccgcaggag ctgcggcggc 120
gaagcggaga gcaccggggg gaggagatgg gaggacgaag aggtcccaac aggacatctt 180
actgtcgaaa tccgtctgt gagccgggat cctcgggggg ctctagtga agccacactt 240
ccagtgcata ggtgaccagt gttcgttccc gcaccacgag cagttctggt acaggcctct 300
ccagccctcc tctggccacc caaactgttg tgcctctaca gcactgcaag atccccgagc 360
tgccagtcca ggccagcatt ctgtttgagt tgcagctctt cttctgcca ctcatagnac 420
tcttcgtcca ctacatcaac atctacanga ca 452
```

<210> 3951

<211> 615

<212> DNA

<213> Homo sapiens

<400> 3951

```
aaagccgggc tcgggccgca agcggggcga ggggttcggg gagcggcggc agccgcggga 60
gcccctgggc agccgtccgc ccgcgcagcc gccgccgccg cgggagcccg tcgccgggag 120
caggagcggg cggaagacaa cggaggggcc gagcgtccga gccactccgc ggggaccgaa 180
cgagcanccc gaagcggcgg cggccgagga cggggacagc gacgacgcgg aggcagagaa 240
gggaacgccc ggcccagccc cgtagcacag gcggagtga gcggaggccc ctgccgctgc 300
cgtcatgccg ttcccgtttg ggaagtctca caaatctcca gcagacattg tgaagaatct 360
gaaggagagc atggctgttc tngaaaagca agacatttct gataaaaaag cagaaaatgc 420
tacanaagaa gtttccaaaa atctggttgc catgaaagaa attctgtatg gcacaaatga 480
aaaagagcct catacagaag cagtagctca acttgctcaa naactctata atagtgggct 540
ccttacaccc thtagctgat ttacagctca ttgacttttg anggcaaaaa agacgtngct 600
caaatittca acaat 615
```

<210> 3952

<211> 300

<212> DNA

<213> Homo sapiens

<400> 3952

```
gagacaatgt gccagtgcc cgctgcagct accagcaacg tccatatggt gaagaagatt 60
agcatcacag agcgaagctg cgatggagca gcaggcctcc cagaagttcc tgccgaatcg 120
tcttcgtcac ccccggggtc cgaggtagcc tcccttacac agcctgagaa gagcacaggc 180
cgagtgccca cccaggagcc caccacagc gagccaccca ggcaagcagc ctcccaagag 240
tccgaggagg ccgggggcac cggngggccc ccggnaggcg tgcgatntat catgaaacgg 300
```

<210> 3953

<211> 539

<212> DNA

<213> Homo sapiens

<400> 3953

```
attgateggc agaaagctaa cttccccca aggctagaaa ccagagttgt taaattcttg 60
ttttccttat acacatacgg tcttaactgc tggatgattaa tcttgattac atcatgcagt 120
ctcttttctg aaagaccaa gcatatcgcc accttaaagt tctcagttta tttttgcaa 180
gcttatttag ttcttcctcc tttgtgtcat tgcacatcc gcggaacaag ctctcagtc 240
ttacgcagtc tcggtgcagt ctaggtggag gtagctgtgg tgtgggcagg cggnggatca 300
gggtcttctg tcccatgttc agctgcatgg ctttcttcat atgaggcttt ctctttccat 360
ttttttcatt ttgttttgtt tgtttgtttg ttttgagaca gagtctcgct ctgttgccca 420
ggctggagtg cagtggcacg atctcggtc actgcaacct gcgcctcctg ggttcaaacg 480
attctcctgc ctcanntccc caagtantcg ggattacagg tgtgtggcac taaccctgg 539
```

<210> 3954

<211> 597

<212> DNA

<213> Homo sapiens

<400> 3954

```

cacagttcat ggtaaagccc aagactgtac ctgcccattc actgcctttt ccatgtatcc 60
tggaactgag catagacctc ttcccaggca gagctgacag caagtaaagg agatcataat 120
cagggggacca aacaactttg tctaaagtgt gaatgtcacc taaggagaag ctgtgagatc 180
agaaggggtgg ggcagaggag cagacaccat gagggagagt ccttgggggt acatctgcca 240
gactgacact gtctggcctg ggcagtggag gggctagcag gaaccacagg tactggtggt 300
gtggctacta ccgttacaac tgcctgtgct tggacatgga ccctctgcaa tatgcggcag 360
tttcattcat tgccccctac attctacacc aagtagaaat ggaaggcaat tggntacttc 420
acagacaaga tctaagtgga gaangaatgc gtccctgtggc tgacagagatc cttggngctt 480
ggagggggaga gcttgagccc cactgatgat gacctccac agctcgccaa ctcaggcctc 540
cctaantccc catcgggggc caattctcac tctggggggtt gggggggantc cacnaat 597

```

<210> 3955

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3955

```

acttcccttt ttccggtccg ccgattatg aatgacggcc ggcgcgagta ttttccacat 60
aagctggctg tcgtttttct cctggcctct gtggaggcga gtggtctgcg ggcagcagct 120
cccagaggca gccttggaat tccagctcgg actgggcggg aaggcgcagg cggcccaggt 180
cgccgacacg ctcacgcacc ctccctgcct ggccgcgcct ctgcgaccag gtgacccaat 240
gaaagaagaa aatgaaagcc ataaagaaaa gtcttacaga agaagaatac ctgtacctgg 300
acttttctca ccaaacagaa ggatgcatct ttctcttca tacatctgta actttatttc 360

```

tgttatctta ctgtgactgt aaaatcttta aaatttgctt agttgtcacc aaagaggtga 420
 gtagagatag ttcactacta agagatgacc tgatccagga tgttgaaata cggattat 480
 caaggcagga gctcccacca atagtccaaa attgctgttt gcctgcagta gtagaacgat 540
 cagacaat 600
 atgaagcaga ccccttaaag aaggaacttt tggacttctt gggcttttaa aagacttgct 660
 tgaaagcctg tgctgaagtt agtcantgga ccaagctatg tgaactcaca nccctttggc 720
 taattg 726

<210> 3956

<211> 703

<212> DNA

<213> Homo sapiens

<400> 3956

actaagacaa ggcagttgag gaggagggag cgcttgaggg ggactggcct ggcgtgcact 60
 ccgcacctcg gggacattat tgcgcgtgga acggctgctt ttggaaggca caacttcctg 120
 aatggaccat gactcccacc aaagatccct gtctctgatt caccaaagcag cttcaaccct 180
 gaaaccagga cgagaagttg acaacatctg agtggacagc taattgacct aagacttcag 240
 accaggcctg tatgatctcc tgtctaaaca ttcttagagt attatattta ctttggggac 300
 tattggcctt gtctgctttg actcagatta taggatatat aacctgggta atgtttctgt 360
 acacatgatg gccacctatg tatatacact tgacttttca gggctctctgc tggggatgga 420
 aaaatagttc attagccaaa ctctcctaaa gtgtggcaga tggaggcagt ctctcagatt 480
 gctggatttg tcaccaagct tccaagggcc attcaagatc attacatgct acttggtgca 540
 ccagagattg atttttctga cactccaaat gttacatat acttacatca nttccctcca 600
 aatgtcactt tccaaattca aattcaactt ctaaagccag gccatatttt caatctgtgc 660
 ttagtaataa nccctaantc tcaaccttcc ccaacgnccc caa 703

<210> 3957

<211> 849

<212> DNA

<213> Homo sapiens

<400> 3957

```

ttcacaaaaa aagaaattcc aaagcagaag tcctggtatg ttactattcc agacaaatct   60
gatatgagaa agcactaaag ataattgaaa cattaattta ataattaatt aattaaaata  120
gtacagtcct ggatgtcttt tttgtgcttt ctttaatttc tttccagcta tatataaatg  180
tgtcttggta tgaatttaag tgcctgggaa tgaatagtac tgtccccag gataataagt  240
tattagcaaa ttaatacctt gcttctgtta gttgtcaaca tgttgcaagt aaacattggt  300
gataggcact gtggatctac taagggtaaag atatcatcct ttcacaaaag gatagctatt  360
aaacctgact gtaggtaaag ttaaattgca actaaacata ttagacata tactaagatt  420
ttaaacatta cacaatattt ctgaccaata aaatataaac tagagtctaa actgtttggt  480
taagaatttc attgctagag tacccttaca agttctaact gaatttccaa aaatctaaca  540
ttttgttctc aataaaataa aatgtgttta ataaatatga agcaaaaaac aaaatcctaa  600
acaaaagcaa aactgttga tcagtcaatt taacatggaa tattattgct attattttta  660
ttgaccaata gtttattcct gactttcctc cagatatgga cactattgat gggacggtgg  720
ccatctgagt ggaattgcat catgcagtac cgctggccca tggcatgttg caggacacac  780
agancacatg gcgtggagac ccgtcctngc ccaggacgct ggcgccccta tgtggagaca  840
gcagtgaac                                     849

```

<210> 3958

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3958

```

gtcacctgga atgccgggag cccctgctca tcccgatcct ctccttgtac atgggcgcac   60
tttgtgcgtg caccaccctg tgcctgggct actacaagaa cattcacgac atcatccctg  120
acagaagtgg cccggagctg gggggagatg caacaataag aaagatgctg agcttctggt  180

```


ggcctttggc tctaattctg gccacacaga gaatcagtcg gcctattgtc aacctctttg 240
 tttcccggga ccttggtggc agttctgcag ccacagaggc agtggcgatt ttgacagcca 300
 cataccctgt gggtcacatg ccatacggct ggttgacgga aatccgtgct gtgtatcctg 360
 ctttcgacaa gaataacccc agcaacaaac tggtagcac gagcaacaca gtcacggcgg 420
 cccacatcaa gaagttcacc ttcgtctgca tggctctgtc actcacgctc tgtttcgtga 480
 tgttttggac acccaacgtg tctgagaaaa tcttgataga catcatcgga gtggactttg 540
 cctttgcaga actctgtgtt gttcctttgc ggatcttctc cttcttccca agttccagtc 600
 acagtgaggg cgcattctcaa cggggtggct gatgacactg aagaaaacct tcgtccttgc 660
 cccancctct gtgctgcggn tcatcgnccct catcgccagc ctcgtggggc ctaacctaac 720
 cttggggggg gcaacgg 737

<210> 3959

<211> 762

<212> DNA

<213> Homo sapiens

<400> 3959

gcatgaaag cagcagctgc tgccccctgcc tcagaggatg aggacgatga ggatgacgaa 60
 gatgatgagg actatgaccc aaattgtgag gaagaggaag aagaagaaga agacgaccct 120
 ggggacatag aggactatta cgtgggagta gccagcgatg tggagcagca gggggctgat 180
 gcctttgatc ccgaggagta ccagttcact tgcttgacct acaaggaatc tgagggtgcc 240
 ctcaatgagc acatgaccag cttagcttct gtcctaaagg tatctcattc agttgctaaa 300
 cttatattag ttaatttcca ctggcaagtt tcagagatat tggacagata caagtccaat 360
 tctgtcaac tgcttgttga ggctcgagtt cagcctaate catcaaaaca tgttcccaca 420
 tcccatcccc ctccaccactg tgcagtgtgt atgcagtttg tgcgaaagga aaacctactc 480
 tctctggcct gtcagcacca gttttgccgc agctgctggg agcagcactg ctcaattctc 540
 gtcaaggacg gcgtgggcgt gggagtctct tgcattggctc angactgtcc actccgtaca 600
 ccagaggact ttgtgtttcc attgcttccc aatgaagaat tgagagagaa atacaggcgc 660
 tacctcttca gggactatgt ggagagtcat taccagctcc anctgtgccc tgggtgcaaac 720

tgcccatg gttattcggg gtacangagc ctanagctcg cc

762

<210> 3960

<211> 553

<212> DNA

<213> Homo sapiens

<400> 3960

gaaaaacatg ggtagtagaa atgtatagaa aatgtatgag gtctcttaac catttgttta 60
aacttgcaatt aagcttcttt tttagcaata tcgatgtcag tgttacctct tctttccttt 120
ttattttattc tttttgagac agagtctcat tctgtcgccc agactgggtg gagtgcgatg 180
atgcgatcgc ggctaactgc aaccgctgcc tcccgggtac aagtgattct cgtgccttgg 240
gctcccgagt agctgggatt tttagtggag aacaggtttc accatattgg ccaggctggg 300
cttgaactcg caacctcagg tgatccaccc acctcagcct cccaagggtg ttgggattac 360
aggcatgagc caccgtacct ggccccctttt gttgttttga ggggcaggca gtaagaagca 420
gggatttctt caaatgctag taagcacaaa gagagggaga agtttttgta agtaacgaac 480
agggccgggc atggtggcgt gagaggccga ggtgggcgga tcacgaggtc aggagttcga 540
gaacanncct ggn 553

<210> 3961

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3961

gtaaactttt ttacttaaa aaagtccttc cccccacctc acagcatatg aatgcgttct 60
ctactgagta aatcaagcct gagctttctc atgtgggctc ctctgtgctc catccacttc 120
tctcttgga gacagggtgt ctttctgcct tccaaggctg atgcctctcg tccccctccc 180
aggggctgca cctcagcca ccccagctg gtgttttcag tttgcttctc tgatagggtg 240

cctcttttat cttctggttt gttgctgctg cttctgaat ttacaggcag cctgtggatc 300
 cttctgttgg tatttttctc tcctaggtga actcttgga ggaggtggc ggcatcact 360
 gttacctcg gccctttcca ccttggcact gctcatcatg ctatgatttg gtcctatcc 420
 tgcccactct aataaacaat cagagtttg gcagttctcc ttattgcaa atttaatggt 480
 catttacaac tcgttttct gaantcttct tcttttttg acaccataga cgtctctctc 540
 tgtgtcactt tctgattttt cttccattga ttctctgact tggctcctga actggttcct 600
 gatttctcct gcctggcact ttagttgttc cctaagagtt ggttcttcac ctcttaactt 660
 ttccaggact ttgtttggn atttgacact gttgactaaa cacctcttctc ntgaaattgn 720
 ctggcattca actccaa 737

<210> 3962

<211> 680

<212> DNA

<213> Homo sapiens

<400> 3962

agccgctgtg ngatggggaa gtggaggcgg aggggagcgg agcccggagc gtcgtggaaa 60
 gcattggaca catttccacc atgctaattg cattttaaat atatttggca attttcccaa 120
 ttttttactg aagaaaactg taagtttata cttgaggact gaagtgtgac tctgccgatt 180
 atcaggcttt caagatgaat ctggaaaaac tcagcaagcc tgaactcctg acactattta 240
 gtattcttga aggagagctt gaagcaaggg accttgttat agtggcctac agagccctcc 300
 atccagggat ttatcccca cctcataga caactctgcc gccaaagcagc tggcccgaag 360
 cacagtcact caggtgctct ccagattcac tagccaacaa gggccaatca agccagtctc 420
 tcccaacagc tctccctttg gcacagacta tcgaaatcta gccaaactg ccaatccaag 480
 aggtgacaca agccattcac ctactccagg gaaagtgtcc agtcccctga gccccctgtc 540
 tccaggaatc aagtcccaa ccatgccaga gctgagagag gaaaccctcc acccatccca 600
 cccaagaaac ctggcctcan ccttctcca tctgctgaga gcaggcaccg aaaggtgatc 660
 ctagaccttg anggaanaaa 680

<210> 3963

<211> 600

<212> DNA

<213> Homo sapiens

<400> 3963

```

gaaaatatgg ggtgaagatc taagacattt aatagtatcg agaagtacac aggcaccact   60
aataatcaga cctgattctg gaaaccctct tgacactgtg attaaagggt ttggagattt  120
taggtaagaa gtttcctgtt actgagaact caaagggtta caagttgctg ccaccttata  180
ttagagttat tcaaggggat ggagtagata ttaatacctt acaagaggta tgtgttttac  240
attaaagttt caatacggca tttcttataa ttaantttgt ttatgtttga taaagaacac  300
aatataaata caattttaag tctttgtaag tgtttatgtt ggtataaatc tctgtgcatt  360
gcttaagggt tagaaataat actagtttaa gatacagagg tgccagccaa gccatactta  420
ctcttccagt tgtcattgga caccctgaat gatgagtcta aagaagtatc attgtgaaac  480
aaggaaatgt cactcacaga antattcctt ggcatataaa acaaagcctt gactctgctg  540
gcataagtct gagttttcat aaactggagc ttcacaaatc tgtaaancctc ataanattaa  600
    
```

<210> 3964

<211> 728

<212> DNA

<213> Homo sapiens

<400> 3964

```

aatttagtaa gagttctctg tatagtctct aatcttagaa aaatgttgga agggtaattt   60
ttaagtgtag tggtttgaag aacaaaccag aagcgcacaa acctttgtgt attttagaat  120
atatttgtct tcattctgcg gagctcttgt gttgtaaagg tgcagaacta cgtaaaaata  180
gtgttgggca gacttacata gtacatctga aatcagatac tggttttatt gaccatattt  240
ctaagggcac ttttccagta aaattgtttt attttttgag tagccttcct atagtgggtac  300
atgttacatc agttgcgcac atcttgattt tacagaatct gtccttaagta ccaattttgg  360
    
```

tttttcaaat caatgtttct gaaatttttg aacactgaaa gtggttttaa atgaatattc 420
 tgaatctagt tctttagaat cctctttgaa ttgtgaaatg caaaataatt gtttagcagtt 480
 taacctgaaa gatcttttta catgataaat gggggaggag aaagactgaa atgaaaatgt 540
 tgaagaccct gatttgaaat tgagtgtaaa ggctagatac tgtaagtttt agagtancctt 600
 tagagacaaa gctagtatcc cacttgggga gatcaagtaa cttgtggntt aaaattttaa 660
 gtaaccagtg ggccatttta cttcactaat ttcncttggg ggggctaatt tttattgccc 720
 aagattgn 728

<210> 3965

<211> 817

<212> DNA

<213> Homo sapiens

<400> 3965

cttacctctt aaaaggtgaa aaattaggga cttggatgtt taattctaaa atgatcccaa 60
 gatttaacca ctgaaagaag caaacaaggg aagagctggt ctttgcagaa atagtitttaa 120
 gtgtgcatat tagagcacta atttgtttct ctctttcaaa gaactggatg aattgcctcc 180
 attgtctcca atgcagccaa tttcagagga agaggctatt cagattattg cagaccctcc 240
 attgccacca gcttcattca cacttcgaga ctatgtggat catcctgaga ctctgcagaa 300
 gttggttctt ctaggcgtgg atttgtccaa gatagaaaaa catccagaag cagcaaacct 360
 ccttctgaga ctggattttg aaaaagacat taagcaaatg cttctgtttc ttaaagatgt 420
 gggatatagag gataaccaac tgggagcatt cctgacaaaa aatcatgcaa ttttctctga 480
 agaccttgaa aatctgaaga ccagggtggc ttatctgcat tcaaaaaatt tcagtaaagc 540
 agatgttgca cagatgggtca gaaaagcacc atttttgctg aacttttcag tggaaagact 600
 ggataacaga ttgggatttt ttcagaaaga acttgaactt agtgtgaaga agactagaga 660
 tctggtagtt cgtctcccaa ggctgctaac tggaagtctg ggaacccgtg aaagaaaata 720
 tgaagggtta tcgtcntgaa cttgggttta aacataacga anttcaacat atgatnacca 780
 gaatccaaag atgttaactg caaataaaat ggaaact 817

<210> 3966

<211> 640

<212> DNA

<213> Homo sapiens

<400> 3966

```
gcagtgcctt gcggtctgtaa tggctgcccc cagctggcgc ggggctaggc ttgttcaatc   60
ggtgttaaga gtctggcagg tgggccctca tgtcgcgagg gagcgggtga tccctttttc  120
ctcactctta ggcttccaac ggaggtgcgt gtcctgcgtc gcgggggtccg ctttctcttg  180
tccccgcttg gcctcggtt ctcgcagtaa tggccagggc tctgccctgg accacttcct  240
cggattctct cancccgana gttcgggtgac tccttgcgtc cccgcggtgt ccatgaacag  300
agatgagcag gatgtcctct tgggccatca ccctgatatg cctgagaatt cccgggtcct  360
acgagtggtc ctctgggag cccccaatgc acggaagtca acactctcca ancagctact  420
gggccgaaag gtgttccttg ttccaggaa ggtgcatact actcgtgcc aanctctggg  480
ggtcatcaca gagaaggaga cccaggatgat tctacttgac acacctggca ttatcagtcc  540
tggtaaacan aanaggcatc acctgaagct ctctttgttg gaagatccat ggaagagcat  600
ggaatctgct natcttgttg tggttcttgt ggatgtctca                        640
```

<210> 3967

<211> 631

<212> DNA

<213> Homo sapiens

<400> 3967

```
tgttgagctt cctctgaggt gctgcacaag gagtgggtgt gggatgcact gttgcgtgct   60
cgctgtctct gagggcgccc ggggtgggttt ccgctgtctg aagagttggg cctatttttg  120
tgcacgtgtt tggngggctt gtgttgtttc tcttggaac gtgcccgggg ggaaggctgc  180
atcccaggag ttcaagatgg cggtgagcta tgattgcacc actgcactcc agcctgggca  240
acagagcaaa cccatctcta aaagaaagaa agaaatttta aaaaggagga aaggaaagaa  300
```

aggagaaaaan aggaaaggaa aaaggaaagg aaactgttcc cattaaacac taactcccca 360
 ttcttccctg cccccagcc cctggcaacc accgttgtct tttctgtctc tatgaattcg 420
 acaaccctgg gaacctcatg agtagaatca tacagtatct gtcctgttgt gatgagctgc 480
 tttcacttag catagtgttt tcaaggttca ttcctgttgt aacatgcgtc caaaatttct 540
 tttcaggacn gtataagatt ccacggctctg tatacaccan cttttgttta tccattcatc 600
 tgttgataac aatgctgctt canacatggt g 631

<210> 3968

<211> 709

<212> DNA

<213> Homo sapiens

<400> 3968

cggttcaatga gctttcacat aggaaacata tccagaccaa gaatagaata tttccaggtc 60
 ctccagaaggc tcccccatgc cccttcacag ttatacttcc ccaaggctac aactattctg 120
 acctgtatca ccacaggtta cttcagaact ttctagttat ttaatgctat ttaggtcaac 180
 ttttaaatgct atattaggtc aagtttcaag aaaaagtttt agttggaaat tcttcttatt 240
 ttgggaggat gcattgaagg cataatttta gccactttaa attttgtgag gagaatgtct 300
 ctaaaacccat attatccata agaaagatca tcaataaaga agatagagtt gtgaaaaaag 360
 aataaaatga agagaaaaat cggctgcccc aagtatcttg cttttctgtg caccacaagt 420
 gaaaatcatc tctttaggat ggtaaagtga gtatactgac cacaagagtt caaaacaaat 480
 tcagattttg gataaaactc agattttattc aagaatccca gaagtccatt cgatgatggc 540
 aatgttctgt tttcaggtaa cagttgtttt tacaccaggt cgtttggtg ttgtgaccaa 600
 ctcatccact tattggccct cattcngtta gaactgttta atgatctgct cncctttcct 660
 ttaatcancc tttccttact ttctctcctc atcatctcag acaacctgg 709

<210> 3969

<211> 666

<212> DNA

<213> Homo sapiens

<400> 3969

```

aagagtagca gcgagcagcc gcgctggtgg cggcggcgcg tcgttgcagt tgcgccatct 60
gtcgggaaggc ccgcctcggc cgcgccggag gagggcgggg agaggaccat gtgagtgggc 120
tccggagcct cagcgccgcg cagttttttt gaagaagcag gatgctgac taaacgtgga 180
aaaagaccag tcctgcctct gttgtagaag acatgtggtg tatataaagt ttgtgacgt 240
tggcggaaat ttggttaagt gttgctgcat ttacttctaa tgcctcttgc tgtaaaatgg 300
tgctcacgaa gggaagctgt tgccttggtc tgtccatctt ttacttctgc actaaactca 360
ggcagaatgg agttctataa ttaaattgta cattgaattg atgttttctg acagtgtgat 420
actttttctt gttattgctg atagtattaa gcaatatggg gttttctaaa acgtaataag 480
tgtatattta gaaaagtctt cggatgccgg ttaaagaata cccttggcaa gtttatgtgc 540
taagccagcc atataatata agagtaataa acttgcagac ccaaagaata aaataaattc 600
tccaaagcag anagattcgt gtgaccata tattaaaaga aagagaacaa gcancttang 660
aaatgg 666

```

<210> 3970

<211> 555

<212> DNA

<213> Homo sapiens

<400> 3970

```

agtagggcct gatgtaaaca cccgagccgg gctccaaggc ccgggagggtc agaaaaccgg 60
gccgcgggcg gcaccgacag ctggggcccg ggtcaggagc acgcggagggt caggccggtg 120
aaggcggcag gaagctggag cacgatccca ggaggaacaa tcctgcacca tgactcaaca 180
gccacttcga ggagtaccca gcctgcgttt caaccaagac caaagctgct tttgctgcgc 240
catggagaca ggtgtgcgca tctacaacgt ggagcccttg atggagaagg ggcatctggg 300
tgagctgttg gcaggggagg ggcaatgggc agaacagctg ggctgggcat tggctccac 360
ctccactgac accctggtcc ctgtccagac cacgagcagg tgggcagcat gggcttgggtg 420

```


gagatgctgc accgctccaa ctttctggcc ttgatgggcg gtggtagtag tcccangttc 480
tcagagatct caggtaagtg ccctcanct gccctttggc ccaagatttc tcggattcct 540
ggcctcccan aggca 555

<210> 3971

<211> 762

<212> DNA

<213> Homo sapiens

<400> 3971

agcgcgagga gaaagatggc ggcgatggcg gtcgggggtg ctggtgggag ccgcgtgtcc 60
agcgggaggg acctgaattg cgtccccgaa atagctgaca cactaggggc tgtggccaag 120
caggggtgag ggccggacct ccacgagcgg aatgcgaggt ccgagcctgt agggagaagg 180
accgtgaccc tgaggcccag tttgagatgc cttatgtggt acggctgcac aacttcacc 240
agctctctgc accccagccc tgtttcacct tcagccatcc caacagagat cctatgattg 300
acaacaaccg ctattgcacc ttggaatttc ctgtggaggt gaacacagta ctacatggct 360
ttgccggcta ctttgagact gtgctttatc agcacttcct aaaagatgat ggtgtgagca 420
tccccgggga gtacattcc tttctggctc ccatctcttc ctccaagctg tacaatgagg 480
tccgagcctg tanggagaag gaccgtgacc ctgaggcacc aaccaccact cagagaagga 540
gttctgctcc tacctccaat acctggaata ctttaagccag aaccgtcctc cacctaattgc 600
ctatgaactc ttgccaagg gctatgaaga ctatctgcag tccccgcttc agccactgat 660
ggacaatctg gaatctcaga catatgaagt gtttgaaaag gaccatcaa atactcncag 720
tnccaacagg gcatccataa atgtctgcta gaccgagtnc ca 762

<210> 3972

<211> 711

<212> DNA

<213> Homo sapiens

<400> 3972

```

acaacaagtt tggaatcaag accatgttgg agacagaaga aggaatccta ctgctgggtca 60
gagccatgga tcctgctgtt cccaacatga tgattgatgc agctaagctg ctttctgctc 120
tttgtattct accgcagcca gaggacatga atgaaagggt tttggaggca atgacagaaa 180
gagctgagat ggatgaagtg gaacgtttcc agccgctgct ggatggatta aaaagtggaa 240
ccactattgc actgaagggt ggatgcctac agctgatcaa tgctctcatc acaccagcgg 300
aggaacttga cttccgagtt cacatcagaa gtgaactgat gcgtttgggg ctacatcagg 360
tgttgcagga ctttcgagag attgaaaatg aagatatgag agtgcaacta aatgtgtttg 420
atgaacaagg ggaagaggat tcctatgacc tgaanggacg gctggatgac attcgcattg 480
agatggatga ctttaatgaa gtctttcana ttctcttaaa cacagtgaag gattcaaagg 540
canagccaca cttcctttcc atcctgcagc acttactctt ggtccgaaat gactatgagg 600
gcagacctca gtactataaa gttgatttga agaattgtatt tcccaaatag ntctgcacaa 660
gaacggggct gacctgact tcaantgccg gnacctccaa gattgagaat t 711

```

<210> 3973

<211> 694

<212> DNA

<213> Homo sapiens

<400> 3973

```

tttaagttct cttgcacacc cagttcccag gcatggctct ccaatctcag ctcctctctt 60
tctctccgga ttttaggtgg ttatgatgga tgaccaacct ctgaccttg actttcgtac 120
tgaggctctca gcctttgcag cttctccctc caaagcagct tttcttctga ttcctgatct 180
cagttcagtg ctcaaaatag cctctcctta ttttctcctg gtgtcagtg taggcctgaa 240
taacatctca tgctgttcgt taaacagatg tctgctgcca aaaagttgtt ctgatagaaa 300
atccaaaatc atcgacccca aaagccaagt ctgtcattgg gctaaagtgc cattcctact 360
aatcctttgc ctcacctgat tcatttgga taaagggccca ggagcttgag tcacccccat 420
gccaggacct ctgttgctat ttgctggctg ctggagaggt ggggtcttgc gggccctgga 480
gaggtggggg cttgtggggc agagctggag cagatgctgc atccagcagt aagcatgaga 540

```

atgagcactc acagttttgg gtcctgtgct gggacactgt gcaagtcctg tgcataatc 600
acctgttgca tttccacag tgaccaatg aagtanatac tgttatcttt accaatttat 660
anatgagcaa cctgaggntt cacaaaattg caca 694

<210> 3974

<211> 526

<212> DNA

<213> Homo sapiens

<400> 3974

atgtatttgg gtaaaaattg cttcttttag aaaatgcaaa ggtttatttg tcttaataaa 60
ttgaatacta ggtgttgtaa ggaagtgaga ccagaaggac aagctaaatt atgcattctt 120
acttgaggga tcggaatgga tggggcggag ttctcttcag gctagccttc tgggaaaagt 180
ggatgtcttt ttcagagatt catcatacct tgacctgtac ctcttctctg ccctccactt 240
ccctgccctg gagtccgttt ctggagacta gaaatgtatc taaattgggg gaacagaatg 300
aatgaattaa tgaatgagag ttcctttgct ttaaccattc ctggatgcct gcaaagtaag 360
gaataatgca gtttttatgt atctganitt ataaggggtt actctttcaa gagtaacaaa 420
aaaatgcaaa ctgnaatgaa actacattgt gtttctaagt gtgaaaacga caggctgccc 480
cgtttttacn aattgcattt gcattttaag gnactactga aggtca 526

<210> 3975

<211> 743

<212> DNA

<213> Homo sapiens

<400> 3975

gctgatgttc gttgttctgt ctttaagtgt ctgccaatga ttttggacaa caaactgagc 60
caccattgt tagagcagct ccttcagct ctgagataca gtctccacga caattcggag 120
aaagtgaggg tagcttttgt ggacatgctg ttgaagatca aagctgtgag ggctgctaag 180

ttttggaaaa tatgtcccat ggagcacatt ctggttcgtc tggaaactga ttctcgacct 240
 gtgtctcggc gcctggtgag cctcatcttt aattctttcc tgcctgtgaa tcagccggag 300
 gaggtctggt gcgagcgtg tgtcaccttg gtgcagatga accacgccgc tgccaggagg 360
 ttctatcagt acgcccacga acacaccgcc tgcaccaaca tagcaaagct gattcacgtt 420
 attcgtcatt gcttaaattgc ctgtatccag agggcagtga gagagcctcc agaggacgag 480
 gaggaagagg acggaaggga gaaggagaat gtgactgttc tggacaaaac actgtcagta 540
 aacgatgttg catgcatggc aagtttacta agaaatcatt gtgattctct ggaaaagtat 600
 tgacagaagt atggnaaata ataaagaggg caaactttac acgattaaca agtttgccctc 660
 tgtgcttcca anagtatctg aaagtattta anggatgatc gctgcaaaga ttcctttaat 720
 caagccaaan gtccctttaa gcc 743

<210> 3976

<211> 757

<212> DNA

<213> Homo sapiens

<400> 3976

actgctctgc cggccactcc tgcattcttta ccgtcccagg gacttccagt tgctgccct 60
 tcccagaggc cgtggcatgc ggggatggcc atcactgctg cccacggggc ttccactgca 120
 gtgcagacgg gcgatcctgc ttccaaagat caggtaacaa ctccgtgggt gccatccagt 180
 gccctgatag tcagttcgaa tgcccggact tctccacgtg ctgtgttatg gtcgatggct 240
 cctgggggtg ctgccccatg ccccaggctt cctgctgtga agacagggtg cactgctgtg 300
 tgtgacctga tccagagtaa gtgcctctcc aaggagaacg ctaccacgga cctcctcact 360
 aagctgcctg cgcacacagt gggggatgtg aaatgtgaca tggagggtgag ctgcccagat 420
 ggctataacct gctgccgtct acagtcgggg gcctggggct gctgcccttt taccaggct 480
 gtgtgctgtg aggaccacat acactgctgt cccgcgggggt ttacgtgtga cacgcagaag 540
 ggtacctgtg aacagggggc ccaccagggt ccctggatgg agaaggcccc agctnacctc 600
 acctgccaga cccacaagcc ttgaagagag atgtcccctg tgataatgtc agcagctgtc 660
 ccttctccga tacctgctgc caactcacgt ctggggagtg gggcttgctg tccaatccaa 720

aaggcttgnc ttgcttgntt ggaccaccaa ncacttg

757

<210> 3977

<211> 640

<212> DNA

<213> Homo sapiens

<400> 3977

atgctagaca aggtactatg cctgtatctc tgctgaaggc tcatgaagct gaaatgtggg 60
aagttcactt tcacccatcc aaccagaac atctttttac ctgctctgaa gatggatccc 120
tctggcactg ggatgcttcc acagatgtac ctgaaaagtc gtcactcttt caccaaggag 180
gaagaagcag tacttttttg tctcatagca ttagtaacca agctaattgt caccagtctg 240
tcattagctc ctggctcagc actgatacctg caaaagaccg aattgaaatc acaagcttac 300
ttcccagtag gtctctgtct gtgaacactt tggatgtttt aggtccttgt cttgtttgtg 360
gaaccgatgc agaagcaatt tatgttacta gacatctttt ttcgtagaag tactataatt 420
ataagatttc agatagaaca tgcaattagc cttttgaaat ccagcttctg tgcaaaattt 480
tagtatcaga aaatacgaga tttgcagggg aaacatcagt aaactaccat taatgtcaat 540
gcccagtttt gacttttgnt agcctgacac tnccaaacag ttgtagaatc cgatanatga 600
ctgatggcaa aagattgtga acatgtggaa gaaaatcagt 640

<210> 3978

<211> 510

<212> DNA

<213> Homo sapiens

<400> 3978

aatnaatgtt cagtgagaac cataatgtga atagtataac ccagcatgat tttggtgtga 60
ggataattga taatcattnn cttccagcag acctacccat ctcggtggga tttgcttcaa 120
gtgatgtata tgcaaattaa tttgcatctc ctggtcatat actaattggt tggtagatgg 180

ttagtagcca agaaacactg cttatggcaa gagaaagtca agtgaaagat taaagaaaat 240
 catgattaat aatctgccag ctgataaata agatagttat aacaccactt tggtagagtg 300
 tacgcttttg gccatgtgta cactgggtgca ttttcaagac agtggctatc ttttcacttc 360
 tgtttggcta atcatgttat gttgttctga agttactgct gccctatacc cacttcacac 420
 agcctgagct ctgtctcctt ccaatgaaca tgaanacttt ttgattccnt agttcctggg 480
 tctgntctga ttccgacagg atgctggcat 510

<210> 3979

<211> 739

<212> DNA

<213> Homo sapiens

<400> 3979

aatggcaaaa gtggaactca ggacatccag cctggccctc tttttaataa taatgctgat 60
 ggagtggcca cagatataac ttctaccaga tccttaaatt acaaaagcac tagcagcggt 120
 cacagagaaa tatcatcacc taggattcag gatgctggac ctgcttcccg agatgtccag 180
 gccactggca gaatcgaga tgatgctgac ccaaaagtag cacttggtta cgattcttta 240
 tctgatgtca caagtaccac atcttctagg gtggatgac atgactcaga ggaaatttgt 300
 cttgaccatc tgtgtaaggg ttgtccgctt aatggtagct gcagcaaagt ccacttccat 360
 ctgccttacc ggtggcagat gcttattggt aaaacctgga cggactttga gcacatggag 420
 acgatcgaga aaggctactg taacccccgga atccagctct gttctgtagg aagttataca 480
 atcaattttc gggtaatgag ttgtgattcc tttcccatcc gacgcctctc cactccttct 540
 tctgtcacca agccagccaa ttctgtcttc accaccaa at ggatttggtta ttggaagaat 600
 gaatctggca catggattca gtatggagaa gagaaagaca aacggaaaaa ttcaaacgtc 660
 gactcttcat acctggagtc tctctatcaa tcctgtccca nggggagttg tgccatttan 720
 gcggctcacg gaactatna 739

<210> 3980

<211> 736

<212> DNA

<213> Homo sapiens

<400> 3980

```

agattaacgg ccgtcccgaa tatgcagcag aggcacaggt ctcccctact catttcaaaa 60
tatattagcc ttgctctaata tagatattaa attttaattc cgttaaactt ttttcttaag 120
tgcacaaagc atcgtactcc ctggaggcaa acacatcggg ctgcttcagc gttagcggga 180
tgcttagcat tttgaatatt gtggcaaaaa aattaaaagt tcacttatta atatttatca 240
gcagtatcat aatttccatc ctcttatttc agaatttcac ttgaggcaaa aataccacaa 300
gtgtaattac tctagcacag ctattaatgt gctggatgat aggccactgc gtcacatgac 360
cttctattgt tcatgggttt aaagagaaag cagggtttg tatttctttt tcttctttta 420
aagtcgactg tagcatcttg gcttttgtct ggggtgggga ggatctgggg tctggttcac 480
tttgtaaaag taaaccatgt ctgtttaaac aatagagggtg ttttaagaaga ctctttagtt 540
ttcctgcaga ttgttcaaga ttacatgata atcacacgga gtatttatct cctactgaca 600
aaccaagtac ttgttacatc accaatggta ccaggagatg aagaccnggt ttgagcagg 660
agcgagatta ccacccaaaa aggagctcct gaggcagccc acttctanca aactttttac 720
atgttgaca tttcan 736

```

<210> 3981

<211> 742

<212> DNA

<213> Homo sapiens

<400> 3981

```

agaaacggca gtggcagcag cgtccggagc agccgcagcc ttctggaagc tccaggcgg 60
ctttctgccg agcctcggtc ccggccccc tctccccgc cccatcggtt gttgtctggg 120
cggatttaaa cagtcaagtn aaatcaagct gggtaatcat ggcagaaggt ggatttgatc 180
cctgtgaatg tgtttgctct catgaacatg caatgagaag actgatcaat ctgttacggc 240
agtcccagtc ctactgnaca gacacagagt gtcttcagga attaccggga ccctctggtg 300

```

ataatggcat nagtggtaca atgatcttgg tagcctggat ggttattgca ttgatcttgt 360
 tcttactgag acctcctaata ctaagaggat ccagcctacc tggaaagcca accagtcctc 420
 ataatggaca agatccacca gctcctcctg tggactaact ttgtgatatg ggaagtgaaa 480
 atagttaaca ccttgcacga ccaaacgaac gaagatgacc agagtactct taacccatt 540
 agaactgttt ttccttttagt atctgcaata tgggatggta ttgntttcat gagcttctag 600
 aaatttcact tgcaagttaa tttttgcttc ctgggtgttac ttgccattcc tatttacagt 660
 atatttnagt gaatgattat attttttaaa aangttacct ggggcttttt ttgggttgtc 720
 ctaaaacttt cnaaacaatt tc 742

<210> 3982

<211> 799

<212> DNA

<213> Homo sapiens

<400> 3982

ataaaaaagt ttctccaaat gagctcatcc tgggctggta agttggggag gtgggggctg 60
 ggggttaatgg aaggtctctt cgtgattgcc ggtgtctttt gctactggac tggatcttat 120
 actcttcctt ttggaggcaa gagtattgca agtgtattac tgactgtgag cagtggctca 180
 atgcctgtaa tcccagctgg gaggctgagg caggaggatc acttgagccc agtagttcaa 240
 gatcagcctg aacaaaatag tgagaccctg tctctacaaa aacatttttt aaaaacttag 300
 ccaggaattt gaagttgcag tgagctatga tcatgccttg ccactgcatt ccagcctgag 360
 tgacagagtg cgaccctgtc tctaaaaaac aaaaggaaag tgtgttacct gtaggaactg 420
 tgaattcagt gggttttgct ggtgggttctg atcctgtggg gccaggatat ttcgaattac 480
 cttgtaagtg acttggaatt ttcatcagc actaagtcag cctttgattt tatttgacat 540
 agttttcggt gtgtgtattg ctcttggcag ttgggtgtcac taggtgtcct accngtagaa 600
 gtgtccggta ccctgaagac acccatgcca ctgttgtgtt tgatattgac gccacatata 660
 gacaggagtc caccactgng tccatttcac aggtaccgct acgggccatg acatcacaga 720
 gcactctgng ctgatccatg agttcctaca gccnagaagg cccccaaccc cattcacctn 780
 acctgtggac acaagtctt 799

<210> 3983

<211> 613

<212> DNA

<213> Homo sapiens

<400> 3983

```

attaagatat gaccacctg aataacctca catactcttc ctatctcaaa actcttaact   60
taatcctatc tgcaaagtcc gttttgtcat atacagtagc atgttcatag gtttcaagca  120
tttggacatg gtcctctttg ggaggcatta cgctgcctgt gacagtgtc ttctgataca  180
ttttcagtga tcttctagac ataacaatcc tggtcctggg aacatgcatg gcggggacct  240
aaataagtct attttttaag aggccctacc ctttgcatag atcctaact tggggtaaag  300
gaaagtttga gatttcactc cacctttttt tttggtgctg gtatttccac tgtgggaaag  360
atcattcgga tttacaacc acatgaagct cctggattat ctggggcatg tttgctgatt  420
ccaaggaag ctgtatcttt ttgatggagc acttgagctg gtaagttatt agaagctgag  480
ctataatttt ccttggcatt ggtcattttt gtctaacttt ttattttttt gntttttttg  540
ttttgttttg ttttgttttg agatggagtc tcaactgtgtc cccangctg gagtgcagtg  600
ggtgcnatct cgg                                                    613
    
```

<210> 3984

<211> 662

<212> DNA

<213> Homo sapiens

<400> 3984

```

gtgctcagcg gcagccacta tggaggccgc caggaccgct gtactccggg tgaagcgga   60
gcgcagtgcg gagccggcgg aggctcttgt gctcgcttgt aaacgcctcc ggagcgacgc  120
ggtcgagtca gcggcacaga agacgtcgga ggatttggag agagcggcgg agaataatgt  180
cttccacttg gtggccactg tgtgtccca ggaggaacca gtccagcctc tctgcggga  240
    
```

agttctgcgc ctgtcacggg acagccagca gcgtgtccgc cgtaatctcc gcgcctcggc 300
 tcgggaggtc cggcaggagg gccgctaccg ggtgctttcc agccgccgat ccttggggac 360
 cacctcgagc ggncaggagt ccgagtacac gccggggaac ccagaagccg ccgggaactc 420
 gggctttcag ttgttagacc ttgtccacga ggaggganaa cctgaagccg cctctgcagg 480
 ctctgcaaa acatctgacc cagatgtgat cctctgcaat tctgtagagt tgatccgtga 540
 gcgattgact gtgtctgagg atggaccagg agtcaagcnc caggaagaac aaaaacacga 600
 tgactatntg tatgacatta ctacttggag acgccactcc aggctggatt gagaacattn 660
 ct 662

<210> 3985

<211> 708

<212> DNA

<213> Homo sapiens

<400> 3985

gctggcgggc ggccgggttg cggcggcggc atggcggagc cgagcggggc cgagacgagg 60
 cccccattc gggtcaccgt caagaccccc aaggacaagg aggaaattgt gatctgcgat 120
 cgagcctcgg tcaaggagtt caaagaggaa atctcccga ggtttaaggc tcagcaggat 180
 cagctgggtc tgatcttcgc aggcaagatc ctcaaggatg gggacacact gaaccagcac 240
 ggaatcaagg acgggctcac tgtccatctg gtcataaga cccctcagaa ggctcaagat 300
 ccagctgctg ccaactgctt tccccctcc acacctgacc ctgcctcagc accctccacc 360
 acgcctgctt caccgcccac ccctgcccag ccctccacct ctggcagtgc ctcttcagat 420
 gctggcagtg gaagccggag gagcagtggg ggggggccct ctccgggggc tggggaggga 480
 tccccagtg ctactgcgtc catactctct ggctttgggg gcatcctggg gctgggcagc 540
 ctaggcctgg gctctgctaa cticattggag ctgcagcagc agatgcancg gcagctgatg 600
 tccaatcctg agatgctgtc acagatcatg gagaaccccc tgggtccagga tntgatgtct 660
 aaccctgac tgatgcntac atgattatgg ccaaccccc aatcanca 708

<210> 3986

<211> 618

<212> DNA

<213> Homo sapiens

<400> 3986

```

agcggaaaac caattggttt aaaagaagag ccagtaagtt catgactcac gtggcctccc   60
agtttgcctc cagctatgtg ttttattggc gggattactt tgaggaccag ccccttctgt   120
atcccccagg ctttgacgga agagtcgtgg tgtatcccag caaccagact ttaaaggact   180
acctcagctg gcgacaagca gattgtcaca tcaataatct ttataataca gttttctggg   240
cacttataca acaatctgga ctaacaccag tacaagccca agggagatta caggaactc   300
ttgcagcaga caagaatgag attttgtttt ctgaattcaa catcaactat aataatgagc   360
tgccgatgta taggaaaggg actgtgttga tatggcagaa ggtggatgaa gtgatgacaa   420
aagaaattaa gctgccaaca gaaatggaag gaaaaaagat ggcagtgacc cggaccagga   480
caaagccagt gcccttgac tgcgatatca tcggggatgc tttctggaag gaacatccag   540
agattctaga tgaagacagc tgaccctttt gcgcttnant tctggtgtgc ttaaccatgc   600
aagcccttcc acctncca                                     618

```

<210> 3987

<211> 711

<212> DNA

<213> Homo sapiens

<400> 3987

```

actgcgcgcc ccgcccggag tccccgccgc cgtcatgcag tccccggcgg tgctcgtcac   60
ctccaggcga cttcagaatg cccacactgg cctcgacctg actgtgcccc agcaccagga   120
ggtacggggc aagatgatgt ctggacacgt ggagtaccag atcctggtgg tgaccctct   180
ggctgcgttc aagtcggcca agcacaggcc cgaggatgtc gtccagttct tggctctcaa   240
aaagtacagc gagattgagg agttttacca gaaactgagc agtcgttatg cagcagccag   300
cctcccccca ctaccagga aggtcctgtt tgttggggag tctgacatcc gggagaggag   360

```

agccgtgttc aatgagatcc tgcgctgtgt ctccaaggat gccgagttgg cangcagccc 420
 agagctgcta gagttcttag gtaccagatc cccangggct gcagggctca ccagcagaga 480
 ttcctctgtc ctggatggca cagacngtca gacagggat gatgaanagg ctttcgactt 540
 ttttgaggag caagaccaag tggcanaaga gggctcgccc gtccagagcc tgaaggcgga 600
 ggatgctgaa gaatccttgg aggangagga agcgctggac cctctgggca ttatgcgctt 660
 caagaagccc aaanaaacat cgggtgtgaaa gggaanggac tgggccctgc a 711

<210> 3988

<211> 741

<212> DNA

<213> Homo sapiens

<400> 3988

ttgcgcctgc gcagtgcac accgcaggcg ggcctcgagg gtccgggagc gcggcggaga 60
 cgatgcctga gatcagagtc acgcccttgg gggccggcca ggacgtgggc cgaagctgca 120
 tcctgggtctc cattgcgggc aagaatgtca tgctggactg tggaatgcac atgggcttca 180
 atgacgaccg acgcttcct gacttctcct acatcaccca gaacggccgc ctaacagact 240
 tcctggactg tgtgatcatt agccacttcc acctggacca ctgcggggca ctcccctact 300
 tcagcgagat ggtgggctac gacggcccca tctacatgac tcacccacc caggccatct 360
 gccccatctt gctggaggac taccgcaaga tcgccgtaga caagaaggc gaggccaact 420
 tcttcacctc ccagatgac aaagactgca tgaagaagggt ggtggctgtc cacctccacc 480
 agacggtcca gattaaagt ggctcagagt ctgtggtcta cacgggtgat tataacatga 540
 cccagaccg acacttagga gctgcctgga ttgacaagt cgcaccaacc tgctcatcac 600
 agagtccacg tacgccacga ccatccgtga ctccaagcgc tgccgggagc gagacttcct 660
 gaagaaagtc cacgaaaacc gtggagcgtg gtgggaagggt gctgatacct gngttcgcgc 720
 tgggcccng cccangaaca t 741

<210> 3989

<211> 846

<212> DNA

<213> Homo sapiens

<400> 3989

```

aggattttca ttttcattta tggcaccogt tgtgtttgag aacatggacc aatttatgga 60
ttagttttaa acccccagtc tgtcacactc aatgaacaat tctaagttgg agagaatcca 120
tatgaaagga ttagaatgtg ccacagtgga gcttacacat gactgtttca actaaatatt 180
gcccagctgc ctctcctgca gtattatatt ttttttttg ctacttagtt aaattgctag 240
tgtctctaatt ttcacacatt gtcagagctt tttttatatt gtaaataaac tgccacaata 300
aatgtatgtg atgtttcatt tattcaagat ggggtctgat aaactgtagg actaggagac 360
taagaagaga agtcaatttt gagtagaatg tgcattcttc aaataatatt gctgggcctt 420
tctttggata ccttgtttga ctgtactcat aaaatagcca gagagtgact gttaagaccg 480
tacacactta atgggttttc aagaagatgg gattgttttt tcttggccat ataataaaa 540
tgtataataa atttgctctc ttgttaatta aaattaagag acagtagctc agctaggcct 600
tttaaagtgc tatataaccc aacaccacca taagtccagc tcaatttttt gtgacctgtt 660
tttctcatgg gctactcaaa gatttttttt ttttaaggca cancaagatg aggttttaaa 720
aangctttgt tagggcaatt agacattttc atttttcaag ctgattatag catttatcct 780
tacattggaa atttagtatt tgcattttgc cttttccnct taaaatgttn cccaccaat 840
ttggnc 846

```

<210> 3990

<211> 715

<212> DNA

<213> Homo sapiens

<400> 3990

```

caaacttcat gtctttcaga atatcatcac ccttgcagaa actggctctc tggacttcag 60
aacattttgt acatcatgtc ttgtgagttt tttcatataa tttttttccg tagtgaaagc 120
aaagtcttgg taacgttgct gatgtaagca tttgtcagat ctatcatggta tatttataca 180

```

cctttgtttt tacccatttc taattttaca ttcctgtctg aacagctttc tgtcttgaac 240
 atatggcaga atgatgttta taatctcttg aagtgtcttc tggttacatc tctccgtgaa 300
 ttatccattg tgtgttttat ttgcttttct ctgtcatgaa gcatatatta gaactaacgt 360
 caaatcagag gctcataatg accttagaaa ccacttagtg aaacctctca ttttgcaatt 420
 gaggaatcaa gggaggaagt aaattctccc aaattattgg tggtgataaa aatggaactt 480
 gggtttccct cccttggttg agtgccttatt ttgctctgtg gtactgcctc atttctgctt 540
 agccagtatg aacaggctct ggaattcaga tcccacttag tgatgtccta atcaaagtag 600
 acatatggaa gtaaatacta ataaggcatt ccacagcctc tgtgtgaatt gatggctgnt 660
 tangatttgt gccaatgcct ctgngaccta aagttaaaat tttgcttggg atttg 715

<210> 3991

<211> 535

<212> DNA

<213> Homo sapiens

<400> 3991

agatcgctcc gccccatcc gcaggttcta actttggcct gggactctgc ccctctacct 60
 cagcacagaa tcgccccggg tctactaca gaatcaatcc ttgaacactg cctccacgtc 120
 gccggctcaa tctgggcgag aaccagact tccaccgcan ccccgcaatc tgcagacctc 180
 agcggcagcg caggtggcag acctgcctcc tttgcctgtg agtcatggca gctcccatga 240
 atggccaagt gtgtgtgng actggtgcct ccaggggtat tggccgtggc attgccttgc 300
 agctctgcaa agcaggcgcc acagtttaca tcaactggccg ccatctggac acccttcgcg 360
 ttgttgctca ggaggcacia tccctcgggg gccaatgtgt gcctgtggtg tgcgattcaa 420
 acccgagagt gtccaatccc aaaaagccag gacgagttac caaccagctg caatacctac 480
 acaaggtagt gatgaaggct ctgtggaaac atcagntcnc atggncattc cggca 535

<210> 3992

<211> 774

<212> DNA

<213> Homo sapiens

<400> 3992

```

agacgagacg tctctccgga gcgggggcga gagcggtcac ccacccgcag gagagacggc 60
tccccagacc ggccggagacg gtctctggag agactcctgg agcagaggag gtcccccgag 120
cgcaggagag ggggctcgcc cgagcgcagg gccaaagcca ccgaccggag gcgcgcacgc 180
tcccccgagc gcaggagaga gcggtccctg gacaaaagga acagagagga cagagccagc 240
caccgagaaa gggaagaggc gaatctgaaa caggatgccg gcagaagttc cagacatccc 300
ccggagcaga gaaggcgacc ttacaaagaa tgtagcaccg acctcagtat ctgagacgct 360
gagtcacatt ccaaccttta ccgtgtcaaa ggttctaaga ggaaagtcac aaacctgaaa 420
ttatttagtt tcttacctaa tgaagcatct gacacctgat gatcctatga ataacaacaa 480
acattttatg catttgaaat cttataagaa aaaatatata tgaaaagtat tgtgcctgat 540
gtatcatatt aaagaaagta tttttaaatg catacttttt tggaattat ttgccaaatg 600
ctggcccaaa gggatataaa ttttgittct acgtaacctg tanaatcgtc aagaattgtt 660
cccgttitgg ggcaatcttt ttctctcctg gntaaatggg gcttgttgat cattttctct 720
acntaagggg aatttattgg ttaagtttaa ttaattgat atanactgtc atgt 774

```

<210> 3993

<211> 416

<212> DNA

<213> Homo sapiens

<400> 3993

```

gaattgggtg gggccgcggt ctccgccttc tagagggtggc ggcctactgc ccttcgggtg 60
ttgtgtgcaa agccccgttt cctgctccct gcgcttgat cctgctgcct tccctcctgc 120
tggtgaagct cgtgctgccc ttgctggcc tgtgctgcca ctgccgaccc gtgtcccggtg 180
gtggagctgt cgtggggctc acgtgacttc ctttcctaca ggcgtccgag ctgggccaca 240
gcctgaacga gaacgtcctc aagcctgcgc aggagaaggt aacgggcagc tccgggtggt 300
tgtgcctgga gcccttcaact ccaggggacg tgggtgtgtc aggggtgtta gggggattgt 360

```

ttgtccanca gctgggactc aatgaggcca ancctcacac ccnacctctc agcaca 416

<210> 3994

<211> 786

<212> DNA

<213> Homo sapiens

<400> 3994

cacttaacac actcttgatg acatatggca ggttcttggt attgacaccc gtgtggctgc 60
 aggtggcatg aatcatgcat ggcttgtctg gatctgtctt ctgcagagcc cattctctct 120
 gtcttttgc t agtctggact ggagagcaac ttccctgagt caggactctt gctgctaatt 180
 gcagaaaacc agcagtctct gtgaagtgt ggtgttctca gagttcagct gtaaaatata 240
 gaatcctcat taattgtatt tacaactata ttgagcaaac caatgttggt ctttattaat 300
 gtacagacca aaaaagacac ctcaaaagaa aggacgtacg cgtttcttgt aaacacgagg 360
 caccccaaga taagaagaca gatagagcaa gggatggaca tggcatctc ctcatgtatt 420
 ggagaaagtt accggcttca gtttgatttt caagaggcag tgaagaattt cttcccccca 480
 ggaaatgaag tggttaatgg agaaaattta agctttgcat atgaattcaa agctgatgca 540
 ttatttgatt tcttctattg gtttgggctc agtaattccg ttgtaaaagt aaatggaaaa 600
 gttcttttag gttcaataga tgatgttttt aactgcaatc tgcacccag atcatctctg 660
 acagagcctc ttttggcaga attaccattt ccaagtgttc tggaatctga agagacaccc 720
 accaatttat ctgattgaac tgacattgta ncagttgctc ccgnacttca agcctgtgct 780
 agactn 786

<210> 3995

<211> 752

<212> DNA

<213> Homo sapiens

<400> 3995

cttggctcgc tgcgcctctg cctcccaggt tcaagagatt cttctgcctc agcctcctaa 60
 gtagctggga ttacaggaaa tgagaacaga agccattgcc agacctctgg aaataaacga 120
 gactgaaaaa gtgatgagaa ttgcaataaa agagattttg acacaggttc agaagactaa 180
 agacctgctc aataatgtgg cctctgatga agctaattta gaagccaaaa tcgaaaagag 240
 aaaattagaa ctggaaagaa atcggaagcg actagagact ctgcagagtg tcaggccatg 300
 ttttatggat gagtatgaga agactgagga agaattacaa aagcagtatg acacttatct 360
 ggagaaaattt caaaatctga cttatctgga acaacagctt gaagaccatc ataggatgga 420
 gcaagaaagg tttgaggaag ctaaaaacac tctctgcctg atacagaaca agctcaagga 480
 ggaagagaag cgcctgctca agagtgggaag taacgatgac tcggacatag acatccagga 540
 ggacgatgaa tccgacagtg agttggaaga aaggcggctg cccaagccac agacagccat 600
 ggagatgctc atgcaaggaa gacctggcaa acgcattgtg ggcacgatgc aaggtggaga 660
 ctccgatgac aatgaggact cggaggagaa tgaaattgac ntgggaagat gatgatgacc 720
 aggatgacna tttggaagac cagagccttt nt 752

<210> 3996

<211> 786

<212> DNA

<213> Homo sapiens

<400> 3996

gatctgtacc tttacttgtg aaaggtatgc tatataattc agcaagtacc aacttgtgta 60
 gctgcagaat aaccaagtgg ctatccagtc aagtaaatac agtttgctta catacttcaa 120
 cagtttcata aaacgattcc cctgagtgc acaagaacat aaaatgttaa tactactaat 180
 atagcctggt aaatcttttg tggagacagg tgcaaatcag aagattgaca aggaagaact 240
 tgagcttgct aaataagact tcctaaattt aaaagctcta gttttgctta gtgtgaattc 300
 tggcacttta aaaagattaa gcaagtgaaa ttctgctgcc ctccaccatt tatttttaca 360
 gtgctttgta atttttttca tcagttcctt aaatgttatt tggaggaaac taagttcttg 420
 acctcagtaa ttttattttt gtttttccct aaatgtttcc ctactagtct ttttggaana 480
 catgtttgtt ttaatttcat cttccctcac tttatttagg tagaattttt ccccttcat 540

ttctgaaatt ttttgctcac cgccatgttt aaatgggggtt gaatcatagc gagccatttg 600
 ctcttgccaa agtgagatag atgtctgagg agataattga aaagtcagac tctgtctgng 660
 gggctttaat cggagcactg ctggaaatga tgcnnagaat gtagtgcttc atatatccat 720
 gaccaagatt gacatgttgc tcacacatgt ccaatttaat gaggagctnc tgttttccaa 780
 aattcc 786

<210> 3997

<211> 739

<212> DNA

<213> Homo sapiens

<400> 3997

atcgagtcgg ccttgttggg tgctaggatt tcaagtatth ggtgtctggc cagaaggatc 60
 tgatgggaca gatataatg cactgggtgcg atcccacaat agaaaggatga tagctgttgc 120
 cgatgacttt tgtaaagtcc atctgtttca gtatccctgc tccaaagcaa aggctcccag 180
 tcacaagtac agtgcccaca gcagccatgt caccaatgtc agttttactc acaatgacag 240
 tcacctgata tcaactgggtg gaaaagacat gagcatcatt cagtggaaac ttgtggaaaa 300
 gttatctttg cctcagaatg agactgtagc ggatactact ctaaccaaag cccccgtctc 360
 ttccactgaa agtgtcatcc aatctaatac tcccacaccg cctccttctc agcccttaaa 420
 tgagacagct gaagaggaaa gtanaataag cagttctccc acacttctgg agaacagcct 480
 ggaacaaact gtggagccaa gtgaagacca cagcgaggag gagagtgaag agggcagcgg 540
 agaccttggg gagcctcttt atgaagagcc atgcaacgag ataagcaagg agcaggccaa 600
 agccaccctt ctggaggacc agcaagaccc ttcgcctcgt cctaacaccc tggcttcagt 660
 gcaactcttt tccttcagct gcatgtgatt ttngataaa gttcaggtaa caggatgggc 720
 antgattgga naatcactg 739

<210> 3998

<211> 739

<212> DNA

<213> Homo sapiens

<400> 3998

ttattcaggc accctaattg gcagattgtc cagcttctac ctttgcatca gcttcgaggc	60
tctaataccc agcccaactt acagcctgtc atgtttcgga acccagggtc tgtgatggga	120
atccggttac ctgctccttc caaacctctt gagactccgc catcttccac ttcgtcctct	180
gctttctctg tcatgaatcc tgtaattcaa gctgttgggt cttcttcagc agtgaatgtt	240
atcactcagg caccatcatt gctttcctct ggagctagtt ttgtgtctca ggctggtaca	300
ttgaccctga ggatttctcc tcctgaacca caaagctttg caagtaaaac aggctctgaa	360
acaaaaataa cttatagctc aggaggacag cctgttggtg cagccagtct tattcctctc	420
cagtctggta gttttgcctt gttacagctc ccaggacaaa agcctgttcc tagctccatt	480
cttcagcatg ttgcttcctt tcagatgaaa agagaatctc agaatccaga ccagaaagat	540
gaaacaaact caataaaaag agagcaagaa acgaagaagg ttctacagtc agaaggagag	600
gctgtagacc ctgaggctaa tgtaataaaa caaaactcag gagctgctac ctcagaagaa	660
actctgaatg attccttgga agataggggt gatcatttgg atgaaaaaat gcctttcana	720
aanaaggttg ngcaactgt	739

<210> 3999

<211> 585

<212> DNA

<213> Homo sapiens

<400> 3999

gagcgccttc ccgttcccgg tgaccgtgtc gctgtgccac atcctggctc tgtgcgctgg	60
gctcccgcgg ctgctgcgcg cctggcgcgt gccccccgcg ccgcccgtct cgggccccgg	120
accagtcgg catccgtcgt ccggcccgtc gctgccgccc cgcttctacc cgcgtacgt	180
gctaccgctc gccttcggca agtacttcgc gtccgtgtca gcgcacgtca gcatctggaa	240
ggtgcccgtg tcctatgcac acaccgtcaa ggccaccatg cccatctggg tggctcctct	300
gtcccggatc attatgaagg agaagcagag caccaaggta tacttgtcac tcatccccat	360

catcagcggg gtcctgctgg ccaccgtcac cgagttgtct tttgacatgt ggggactcgt 420
 cagcgccctc gccgcacgct gtgcttctcg cttcagaaca ttttctccaa aaaggtcttg 480
 cgagattcac ggatccacca tctnccgctg ctcaacatcc tgggctgcac gccgncttct 540
 ttatgatccc cacctggggt ctggtggacc tctcgnttt cctgg 585

<210> 4000

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4000

atttccattt cctagcagat ttcataact acatacagag cttaatgggt tttgttttac 60
 taattagatg atgtaaaaca gagatttggg ttatcaatgt gaatgaattc aggggtgggaa 120
 agaccacag acaaggtctc tactgccttc tctttgtatt gcttttgtgg gaggttggag 180
 atacgaagtt caattggtag aatattctag atcactgggt gacagcaggc cccaagtctg 240
 tctgtccttg cacagtattc ttaattctgt atatctggaa cctgaatgggt caattttttt 300
 ttttttcccc cagagtgggt atcaagtcct gggaaatcct gactcatagg gctcaaactc 360
 agacatattt atgtcagaga agcaatttaa gaaccatttt acatgtaaaa taaaagtatt 420
 tcactgggga aagcataaac ttttaaactc aaaccaacta tacagggtctc ttatgaggat 480
 aaattaatca atttaccatg ccaggcacat agtaggttgc tttaaaagta tgtcatcttc 540
 gttttttctt aagagatggg aggaatataa ttggttgagc aggaaaggaa cacatgtatt 600
 gaggcacgaa gttttgtgt tcaaaggttt ctgggttagt aatgcttggg tttcaaagct 660
 gncatcatct tatagnctc ttg 683

<210> 4001

<211> 262

<212> DNA

<213> Homo sapiens

<400> 4001

cacacagctg ggacgtgacc ccgcctcttg ggggtggtcg cgtgttgctc agtgctgaag 60
 tggggttctc attccggccc ccctggagat gaccccgag gaggccacag ccaaccatga 120
 cagtgtctggg gctctggctg ccttctccac ccaccccacc cctcactcag gtcgtgtttt 180
 caggagctca aggctggagt gtcttgacag taaggggagg ggagcggagg cggaggcncc 240
 tcangcagcc tctccatcta cn 262

<210> 4002

<211> 615

<212> DNA

<213> Homo sapiens

<400> 4002

taaaattgac ctggaatcaa ccattgacat gtctgtgct aaatatgaat tcactgatgc 60
 cctgtctgtc catgatgatg agctggaagg gcgccgatt gccttcaccc tgtacctggt 120
 tcctccctgg gacaggagca tgggtggtac cctggacctg tacagcattg atgaacactt 180
 tcagccgaag cagattgtca agtctcttat cccttcgtgg aacaaactgg ttttctttga 240
 agtatctcct gtgtcctttc accagggtgc tgaagtgtg tctgaagaaa agtcacgttt 300
 gtctataagt ggctggtttc atgggtccatc attgactcgg cctcccaact actttgaacc 360
 ccccatacct cggagccctc acatcccaca agatcatgag attttgtatg attggatcaa 420
 ccctacttat ctggacatgg attaccaagt tcaaattcaa gaagagtttg aagaaagttc 480
 tgaaattctc ctgaaggagt ttcttaagcc tgagaaattc acgaaagtct gtgaggcctt 540
 ggagcatgga catgtggaat ggagcagccg aggtccccct aacaaaaggn tttatgagaa 600
 agctgangan agtaa 615

<210> 4003

<211> 697

<212> DNA

<213> Homo sapiens

<400> 4003

```

ttttaaaaaa ataattgcgc cccccgccc cgtgccttgg agatagtaag aattggagca 60
gagcactggg acttcaattc acgcatggaa agagatcttt gttagttgga ggaaggagaa 120
cttgccctgag cttcgggcct ttgttttggt tttgtgagag ggacgtgtct cctaaatgaa 180
tgtttgctcc agcgttgac ctcaaataag tcacctaaat atccacgccc tctttatcca 240
ccccctcttt actcgtgtga ctagaatagt ttcatTTTT cttctcaagg gaatggctaa 300
acagctccta tctgggcgtt tgatggactg tcattcaaga atgagtgaag ttgaggtgcc 360
tataagcaac tcagaaattg ttgtggccac gcttggggga aatagagccc tacactcagg 420
tgatgagagg agacctcaga ggtgaccgat ccagggcctt gctccctgcg ccacccagc 480
tcgtacctcc agtggaactt ggctgggctt atcaagagct cctttcattc attgcaactt 540
catttgtag aaagcttctc tgtgtattta gtaggcattg ncttcaacat gtaccactgg 600
tctggctttt ggtaggcca ttaatagtgt catgtgacag cctttcaagt ataggtgctt 660
cccgcttac nggggggtcn cattccagtn aacacat 697

```

<210> 4004

<211> 651

<212> DNA

<213> Homo sapiens

<400> 4004

```

atgctataat gtctgaacag ccaactgcact tgggcaacat agcaagaccc tgtctcttaa 60
aaaaacagtc tccatttata tagcattcag gaataggaaa aactacaggg aaggcaaaaa 120
catcaatggc ctctgagct gggaatggga gttaattaca aaggacatg agggaaatTTT 180
taggggtggt gtgacttcaa tatcttgact gctgatgatt gattgattac atgtttgaca 240
gaactcacag aactctacac ttacgaagga aaaaaagttt tgTTTTTcta gcttaaccaa 300
agtggtagca aacctttaaa atatcaagct tagaagaagg gctagaacat gtccatattt 360
tacctcatta gaaataaaga ataggatggt gaaaatgggt tgtgctTTTaa gaagactgaa 420
ccaagctagt agctcggatt tgggtgtcca ccacctcacc ttccaggctt ataactggtg 480

```

attctgtca agaatctgtc ctacgtgttt tcaacatcga gaattaattt gagacaaact 540
 acatctagtt cataaacaaa gcttgaatta aaaaggattc ctgtcacagg ccaaaactag 600
 tctacaaacc cttanggtgg ccaatcttgc ttttacaccn ccaaagatnt t 651

<210> 4005

<211> 813

<212> DNA

<213> Homo sapiens

<400> 4005

ttagctgtca gtaacaagct tcctcgagtc tcacagtcac aggattgtct tagttctttg 60
 cagttggctc tatgtacaca agaacatgct gcccatagac acagcgctcc cttcaggatc 120
 taattcactg cctctgtctt cgctgcagag acagaaaaaa aagtgatgtc tgctctttgt 180
 ttgctgttat attcccaact agtatacata agtaatagcc aaccattcaa tgcatacaggc 240
 actatgctaa acccatatga ctcaaataatt aagcaatagg ctttaagatca cctactcagg 300
 aaataacagg cttcaaacct tgagtcgctc tgtgcaaaag ctctactttt taacctgtat 360
 tccacacttg ctgtttgggt ggattttctg caattccttc ctaataagga gtcataaaaa 420
 tgcctaagca gtaagtatgg agaatcacta gcaatctttg aacagcagct catgaaaagc 480
 ctttcgttgt gaaagaaaac caggaagcac ttgtttcctg gggatatgat ttaggagaaa 540
 aaaatgcatt tgttttagc agtgaaagtt cttgnttcta tctctccta aaatatatat 600
 attattgaat taatgaaagt ccagctttga tcctatcttt gagagggtta tttatgtctt 660
 atatttttca aaccatttac tcctctgggt ccagatctgg taactttctt ttaaaaataa 720
 gacaaaacct aatgaaaact gaaagcccat tgttccatga aaaacttntt gaaaataaag 780
 ggaactttct ggaattttgg gggaaggtna aaa 813

<210> 4006

<211> 745

<212> DNA

<213> Homo sapiens

<400> 4006

aaaaacatga	aggacagata	tgttgaagtc	cttcagtgtt	cagctgagga	gatgaacttt	60
gtgttaatgg	ggggcacttt	aaatcgaaat	ggcttatccc	caccgccatg	taagttacca	120
tgcctgtctc	ctccctccta	cacatttcca	gctcctgctg	cagntattcc	tacagaagct	180
gccatttacc	agccctctgt	gattttgaat	ccacgagcac	tgcagccctc	cacagcgtac	240
taccagcag	gcactcagct	cttcatgaat	tacacagcgt	actatcccag	tgtttgaaag	300
atgtatgggtg	atcttgaaac	ctccagacac	aagaaaactt	ctagcaaatt	caggggaagt	360
ttgtctacac	tcaggctgca	gtattttcag	caaacttgat	tggacaaacg	ggcctgtgcc	420
ttatcttttg	gtggagtga	aaaatttgag	ccagtgaagc	caaatcgtaa	cttacagcaa	480
gcagcatgca	ncatacctgg	ctctttgctg	attgcaaata	ggcattttaa	atgtgaattt	540
ggaatcagat	gtctccatta	cttccagtta	aagtggcatc	ataggcggtt	cctaagtttt	600
aagtcttggg	taaaaactca	ccagtggcta	ccatctccac	catgaactct	tgtaaggaa	660
gcttcattn	gnatattccc	gctctttttc	tcttcatttc	cctgncttct	gcttaatcat	720
gccttcttgc	ttaagtaatt	caagc				745

<210> 4007

<211> 597

<212> DNA

<213> Homo sapiens

<400> 4007

agtacacacg	cacctgagtg	agtggcacca	gaggaccctc	tccatgttta	gggacctcct	60
gggcctcagg	agcgtggcgc	ccgccccctg	gcggactccc	cccatccgcg	ggcgcgggatg	120
gtccggggccg	cgctccgcagt	gctgctggct	gctccctggt	tgctgggtgc	aaagtgctgg	180
gttctgggtt	tctggattcg	cgggccgttc	acacgtagcc	tgtgccggct	cctcgggtga	240
gtccgtccgc	gcgcggtgcc	ccgggacggc	ctangctgcc	gggggtccgg	ggccccaggc	300
attccgggct	gcagattgac	ggggatcccc	gatgcaccgc	gcgccccccg	gccctcaccg	360
acgggtccag	acctggtggg	aagaaggtgc	ngggacgggt	ccctgaggat	ccnatgcct	420

acgagccaag atgctcagct ttataggtgt gacctacaca tgtgacttca cctcagtttt 480
gtgatccgta aaatggacaa attcnaagct acttcacaag tgctgttgat aggattaaat 540
gaaacaatgc tngtaaagct ctttgcanga aggagccttg gaagcaaggg cctggcc 597

<210> 4008

<211> 681

<212> DNA

<213> Homo sapiens

<400> 4008

ctgcacaagg gcgccaagcg caagggcac aagtcgtcca ttggccgcct gtttggaag 60
aaggagaagg gcaggctgat ccagctgagt cgggatggag ccacaggcca tgttctgcta 120
acagactccg aattcagtat gcaggagcct atggtgcctg ccaagctggg gaccaggca 180
gagaaggacc ggcggtctaaa gaagaaacac cagctgcttg aagatgcccg caggaaagga 240
atgccctttg ccagtgga tggtcctact gtgtctcct ggttggagct ctgggtggg 300
atgcctgcct ggtatgtggc agcctgccg gccaacgtca agagtgggtgc catcatgtcc 360
gctctgtcgg acacagagat ccagcgggag atcggcatca gcaatgccct gcaccggctc 420
aagctccgcc tggccattca ggagatgggtg tcattgacca gcccctctgc ccaccacct 480
tcaggacttc ttctgggaat gtctgggtca cccatgaaga gatggaaact cttgaaaca 540
tntactaaaa caaccctgcc tatggggaca tgaaccatga gtggattggg aatgaatggc 600
tcccagcctg gggctccgca gtaccgnag ctacttcatg gaatgcctgg tggacnccn 660
catgctggac cacctacca a 681

<210> 4009

<211> 652

<212> DNA

<213> Homo sapiens

<400> 4009

taaaaaatgt catcacttgc caagcctggt ggctcatgcc tgtaatccca gcactttgtg 60
 aggctgaggc aggaggatta cttgagtcca aaagattgaa gctgcagtga gctgtgattg 120
 ggccactgcc ctctagcctg ggcaacagag caagacccta ttcaacaata acaaaaaaag 180
 gaattaggtg atgggaaatg cctaccattt gaatctataa agataagcaa ggcagggtgc 240
 agtggctcac gcctataatg ccaacatttt gggaggctga gacaggagga tcgcttgagc 300
 tccagagttc aagaccagcc tgggcaacat agtgagatct agtctctaca aaaataaaca 360
 aatttagctg ggtgtggtgg tgcgtgcctg tagtctcagc tacatgggag gctgaggtgg 420
 gaggattgag tgagctcagg aggttgagac tgcaatgagc catgattacg ccactgcact 480
 gcggcctagg tgacagcaaa acctgtctca aaaaagagag agagagagat aagcaagagt 540
 tactcatgat gcttggactt gggggaagat gccaaactctg gcacatgtca nttactacat 600
 naaaagtcaa gtgcaatgtc aaatccagag cntcaagagg aaaaaaagtt ca 652

<210> 4010

<211> 730

<212> DNA

<213> Homo sapiens

<400> 4010

aaggaatfff ttgagaagtt acaacacaca ctggatcaaa agaagaatga aattctgtct 60
 gactttgaga ccatgaaact tgctgttatg caagcatatg acccagagat caacaaactc 120
 aacaccatct tgcaggagca acggatggcc tttaacattg ctgaggcttt caaagatgtg 180
 tcagaaccca ttgtatttct gcaacagatg caggagttta gagagaaaat caaagtaatc 240
 aaggaaactc ctttacctcc ctctaatttg cctgcaagcc ctttaatgaa gaactttgat 300
 accagtcagt gggaagacat aaaactagtc gatgtggata aactttcttt gcctcaagac 360
 actggcacat tcattagcaa gattccctgg agctttttata agttatffff gctaatacctt 420
 ctgcttggcc ttgtcattgt ctttggctct accatgttcc tagaatggtc attatttgat 480
 gacctggcaa cttggaaagg ctgtctttca aacttcagtt cctatctgac taaaacagcc 540
 gatttcatag aacaatcagt tttttactgg gaacagggtga cagatggggtt tttcattttc 600
 aatgaaagat tcaagaatff tactttgggtg gtactgaaca atgtggcaga atttgtgtgc 660

aaatatnaac tattataaaa tctgtttcaa gtatgcagtt ttcttttggt agaaattggt 720
agagaatnna 730

<210> 4011

<211> 671

<212> DNA

<213> Homo sapiens

<400> 4011

agcaagaacg ccagggacgg ggtctccgcg cctgcgcagt gaagctgggc gccttcgggg 60
cttgagcttc tgagggtcgg gtccagcgcg tgggctgctg gatggcgga cccagggcg 120
agtcggagcc cctgctgggc ggggcccgcg gcggtggcgg cgactggccg gcggggctga 180
ccacttaccg cagcatccaa gtcggccctg gtgccgcggc caggtgggac ctctgcattg 240
atcaggctgt ggtcttcac gaagatgcta ttcagtaccg ctccatcaac caccgggtgg 300
atgccagctc gatgtggctt taccgacgg attactcgaa cgtatgcca cggactttga 360
gcttcaccat cttcttgatc ctgttttttg cttttatga gaccccatcc tcactcacca 420
gcacggcgga cgtgcgctac cgcgctgccc cctgggagcc gccctgcggc ctgaccgaga 480
gtgtcgaggt gctctgcctg ctggctcttg cggccgacct ctctgtgaag ggttacctgt 540
tcgggtgggc ccatttcag aaaaaccttt ggctgctggg ctacctcgtg gtgctggtgg 600
tgtctctggt ggactggacc gtgtccctga ntctcgtgtg tcatgacccc ttgcggatcc 660
gncggctttn t 671

<210> 4012

<211> 737

<212> DNA

<213> Homo sapiens

<400> 4012

gctcaggcct cggaggcggg gcgatggcca cctcccaccg agtggcgaag ctggtggcct 60

ccagtctcca gaccccggtg aatcccatca ctggagcgcg ggtcgcccag tacgaacgcg 120
aagacccctt aaaggccctg gcggcagcgg aggcgatctt ggaggacgaa gaggaggaga 180
aagtggcgca gcccgcctggg gcatcgagat ggggtttcac catgttggcc agatttgtct 240
tggattcctg acctcaagtg acccaaagtg ctgggattac aggcataaac cactgtgcct 300
ggccaattct gttgattttt cgagtgaata ctgcatactg gattcagaca ctgctactaa 360
aacgaactgc tgctgcccag atgaataacc gttgctagac tgacacaagc cgacaggaag 420
cagtcagagg gctaacagaa aggagctgat ttgaacacca gcttttctgg ggtggatgaa 480
catgcaccga taagctatga ggactttgtg aactttcctg atattcacca ctctaagtga 540
gagtatttca agaaagtaga agagttgaag gctgcccaca tagaaactat ggcaaaatta 600
gagaaaatgt accaggataa attacattta aaggaagttc aaccagtggg catcagagaa 660
gactctctta gtgactcttc cagatctgta tcagaaaaga ctncatnnc cctgnctcat 720
taatgacatc attttca 737

<210> 4013

<211> 705

<212> DNA

<213> Homo sapiens

<400> 4013

tcaataaagt tttagcccac ttcgtcgcta tgtgtgatac aaatatgcca tttgtaggac 60
ttcgggttga gttgtccaat ctggagattc cacatcaagg agtgcaagtg gaaggatgatg 120
gcttcagcca tgcaattcgc ttattaaaaa ttcttcctg taagggtata actgaggaaa 180
cccaaaaggc tctggaccgc tctcttcttg attgcacttt ccgattacaa ggtagaaata 240
accgcacttg ggtagcagag ttagtggttg caaattgtcc acttaatggc acttctacta 300
gggagcaagg accatcccgg cacgtttacc tgacatatga aaatctgttg tctgagcctg 360
ttggtggtag aaaggtggtt gaaatgtttc ttaatgactg gaatagcatt gcacgattat 420
atgagtgtgt gttgaaattt gcacgttctc taccagacat acctgctcat ctaaattatt 480
tctcagaagt tcgtgtttat aattaccgag aacttatctt gtgttatgga accaccaagg 540
gaagctcaat tagtatccaa tggaattcga tccatcaaaa attccacatt tctttgggaa 600

ctgttggccc aaactcangt tgcagtaact gcacaatacc attctccatc agcttcaaga 660
aatgttcaac aaacaccaaaa tgtgggtcaa ntnttacagg tactg 705

<210> 4014

<211> 797

<212> DNA

<213> Homo sapiens

<400> 4014

gaaatcaatt atgcaaagga ggaggcttgt cggctgagag agctaaggga gggagctgaa 60
tgtgaattga gtagacgtca gtatgcagaa caggaattgg aacagggttcg catggctctg 120
aaaaaggccg aaaaagaatt tgaactgaga agcagttggt ctgttccaga tgcacttcag 180
aaatggcttc agttaacaca tgaagtagaa gtgcaatact acaatattaa aagacaaaac 240
gctgaaatgc agctagctat tgctaaagat gaggcagaaa aaattaaaaa gaagagaagc 300
acagtctttg ggactctgca cgttgcacac agctcctccc tagatgaggt agaccacaaa 360
attctggaag caaagaaagc tctctctgag ttgacaactt gtttacgaga acgacttttt 420
cgctggcaac aaattgagaa gatctgtggc tttcagatag cccataactc aggactcccc 480
agcctgacct cttcccttta ttctgatcac agctgggtgg tgatgcccag agtctccatt 540
ccaccctatc caattgctgg aggagttgat gacttagatg aagacacacc cccaatagtg 600
tcacaatttc ccgggaccat ggctaaacct cctggatcat tagccagaag cagcancctg 660
tgccgttcac gccgcacatt gtgccgcctc gcctcacctc agcgagctca cttgctccac 720
acgcccccan ccgtcacacc cttgggaccc ttaccacccg naacacacac cacactnctt 780
gccttcccct gatccaa 797

<210> 4015

<211> 662

<212> DNA

<213> Homo sapiens

<400> 4015

```

acacgcgtcc tcccctcggc ggggaggccg gctaggggca ggcgggcagc gatgcctgcg 60
tcggccacag ctgcctggca ctgccctcct ttgtgcctgc ctctcttgcc agcctccgct 120
ccaacctccc cccccaaccc cgcaacgagg cctgctcctg ggcccggccg cagggcccgt 180
tgcccacaga gcgcccaccc tgcgcccacc cggggtgccc tcaccttctg ggcccctggc 240
tcctggcctc gggctcctgct ggtgcccagg tcgcccggcc ccgtcctccg tgctccgcgt 300
ttgccccacc ctgctgcccg agctcggcgg cgagcctggc acggtgccag gctgcctggg 360
agcccagccc gggcagggcg aactttccag cgagggttgg tctcaaactc ctgggctcat 420
gcaatcttcc tgcctcggcc tccaatgtg ctggaattac aggtatgagc taccgcgctc 480
agcccaaacc cagggctctt aaccacccta ctatgtactg tgctggcccc cggtaagg 540
agagaactca cgtcaggcaa aaatgtttta caagagaggc anctaagtct tttccacagn 600
ggatgacaca agtncccctt acaaaaccac ccacagatcc aaccccaagg aaactcttgc 660
tt 662

```

<210> 4016

<211> 824

<212> DNA

<213> Homo sapiens

<400> 4016

```

gtctggaatc aagcgaacca tcaaagaaac cgaccctgat tacgaggatg tatctgtggc 60
ccttccaaat aagcggcata aagcaattga gaattcagct cgagatgctg ctgtgcagaa 120
gattgagact attatcaaag aacagtttgc tcttgaaatg aagaataagg aacatgaaat 180
tgaagtcatt gaccagcgac tgattgaagc aagaaggatg atggataaac tgcgtgcctg 240
cattgtagca aactactatg cttctgcagg tcttctaaaa gtttctgagg gatcaaagac 300
atgtgatacg atggttttta atcatcctgc tatcaagaaa tttttggaat caccatctag 360
gtcatcatct cctgccaatc agagagcaga aacaccatca gccaatcatt cagaaagtga 420
ttctttatct cagcacaatg acttcttata tgacaaagat aataacagca atatggatat 480
agaggaaaga ctctcaaaca acatggagca gagaccaagc cgaaatactg gaagggatac 540

```

ttctagaatt actggctccc ataaaacaga acagcggaat gctgatctca cagatgagac 600
 ttcacgactt tttgtaaaga aaacaatagt agtgggcaat gtgtccaagt atatacctcc 660
 ggataagang gaagaaaatg accagtcaac tcataaagtg gatggtatat gtccgagggt 720
 cccgtanaga acccagcatt aatcattttg tcaagaaggt ttggnctctc cttcatccta 780
 ctttaaccaa atgaccttgt ggaanttaga gagcctcctt tacc 824

<210> 4017

<211> 613

<212> DNA

<213> Homo sapiens

<400> 4017

tgtttgcaaa taaaccattc tgataaatta tttttgttgc ttaaaataag aggaggaacc 60
 gctgtgtgtt agcaagaatg tccataacctg atatgaaaga gtcattgttg cttcagttcc 120
 tactgccctg tggacttccc attccctcct tacttgagtc aaccatccac tcagtacttt 180
 ccacaaatct aataatgagg tgctctctgt aggtaaatcc tttcactatg gcttgtcctc 240
 aaacctccca agaaaagggt caactgctca atctcttaac ctttttaatt ccattccctt 300
 gcaggtatcc cggccctgca taacaagatg atcccaactc aaggaaagg gtttagcagt 360
 gttggatctt ggcgtatgtg ggatttaacc aggagaaag gcagacaaga gtaagattct 420
 aggagagag agcaaatgcg tcgagcatgg gtatgaacat gtgaggata gagaataatt 480
 ctgcaggaag ttigtctgat ggaagggcct tatagggtta gaaaagctgg tgcagattg 540
 tcaaggactt tgaatgtcat ggggcttctc ttccaggaac acccaanttt tggggggggg 600
 nnaaaatttc ccc 613

<210> 4018

<211> 587

<212> DNA

<213> Homo sapiens

<400> 4018

```
gaggtgcccc ttttaagctag atgtgcatgt caccacagat gagtttcagt tagggcttat 60
agcagcacat ggagtgcctg agcatgccaa taggcctttt gtcccaacta tggaagggag 120
ctgagctcca gtatttcttg gtagagaagc agttagtaac agcaggatgg gtgtgttcat 180
gggtaaccac cccctcaact gggaaaacag taactgcata tgctgccctt taggctcaca 240
aaagtgtgtc aggatgggtt acagtcacg tatgggccac ttacctagta gcgggagggg 300
tgtgttcatg gggaacaacc cccagacag ggaaggcaca gacatccact ttancaaagt 360
ggggtgccta cttggagcan caaagtatgc caagtcctt agcagcaaag ttgcaaaaag 420
tcttgggacc tgtagtccta atgcaaaata agactgtggg gcctaaggca tccctagacc 480
ctatgctttc accattagga agagcgtccc cccattccta ataggcatg gtatacagat 540
gggtctagcc aaggtgctac tgctgcctcg actgttgtt caaannn 587
```

<210> 4019

<211> 598

<212> DNA

<213> Homo sapiens

<400> 4019

```
agcaaaatct acattgcaac agacagttcc cctgtggata tgcaatctta tgaactttgc 60
tgtgacatga tcgatgttgt aattgatgtg tcttgtatat atgggttaaa ggaagatgga 120
agtgggaagt cttatgacaa agaatctatg gcaattatca agctgaataa tacaactgtc 180
ctttatttaa aggaggtgac taaatttttg gcactggtct gcattctaag ggaagaaagc 240
tttgaaagaa aaggtttaat agactacaac ttccactgtt tccgaaaagc tattcatgag 300
gtttttgagg tgggtgtgac ttctcacagg agctgtggtc accagactag tgcctccagt 360
ctgaaagcgc tgacacacaa tggcacgcca cgaaacgcca tctagtctga atcccagcgt 420
cggggctctg tgccagctta ctcttcactc cagggtcgga tgccacgtgc tacaggacat 480
gggagctgct gcttgtggga atctggtgcc tgttccacta gagacaagg gtagagtttc 540
tcatttggat gaaaaccct tcaactgggt gtgtcaacc ntttgggna aaaaangg 598
```


<210> 4020

<211> 568

<212> DNA

<213> Homo sapiens

<400> 4020

```

agccgtagcc agatccgttg aaaggagtgc agagaggtct cattgcgctc ccgaacagac   60
ctgacgtaga tccgaagtgg cccgcgccat ctcaactatg aggggacacc cgtaggcggc   120
gggagaggga cgccgcgagg agccaataaa gctccgcaac cggaagtgtc ttctgggagg   180
ggtcgtaccc ggaagtgtgg cacctcccgg gccgcacccg gaagtgtgat gccaccgccg   240
ctacggggaa gtaatggtat ccggccaatt gagattcgga gttaaaacag ggatgtgcag   300
atggaggtcg gaggagacac tgctgccccg gccccgggg gcgcggagga cttggaggac   360
acgcagttcc ccagtgagga agctagagaa ggtggagggg ttcacgcggt cccgccgat   420
cccgaagacn agggcctgga ggaaacagga tccaaggaca aggaccagcc acccagccca   480
tcaccaccgn ccantcaga ggccctgtca agcacctctc ggctctggag tcctgcaccc   540
ctgagaatag tcccacatgt anccctga                                     568

```

<210> 4021

<211> 603

<212> DNA

<213> Homo sapiens

<400> 4021

```

aaaaggtaat gtatggaaag gaaccaacca tctgaaataa tagtcctaaa tccaactaga   60
taatctttta aagctgtaag agtcagagat ggagatttct aaactttcaa agaaaacttg   120
attgcaaatt agaaacctgt gcatttttga atgcttattg aatttgaatg tctgtgtggg   180
ccaaaaagaa tcagagggac aaatggaagg caggaaagaa aaggtgtaaa ttttagatgt   240
gttttaaaatt aatgtattta atgacatatt agactcatta caattttatt gactttccct   300
ttacatttga atgtaatttt ttactagccg atgcaagctg caaaatggcg agtcttctaa   360

```

ggatgcctttc cttccctggg atcctcatct tagaatgagc agaggcacat cgataagaac 420
 tggaccttga tttcacaacc tcatacaaag ccaggcaatt cttgagccaa acaaaggggg 480
 tgtaagctat ttcatttatt ttgataatcc tcctcttgca cgggagcatt ttgctgtctt 540
 tgtcaaagtg aatgacaaca atttggccaa ctctctcttg ggaaaagnnc cccttttggg 600
 ncc 603

<210> 4022

<211> 598

<212> DNA

<213> Homo sapiens

<400> 4022

tccttgcaca ccatggcagc ctctccttgc accttctcct gcctctccac actccaggtt 60
 ccctcaggct tgtgtcccca ctgctgcac gtggcgggggt gtcacagacc ctctgcagcc 120
 cctggctgcc ctggactgtg cagagatgcc tgactccang gaaacctgaa agcaagaagt 180
 taatggactg tggccttctg tgacgcgcag tcgacgcagg aaatccacga gaaggttcta 240
 aacgaagccg tgggcgcat gatgtaccac accatcacc tcaccaggga ggacctggag 300
 aagttcaagg ccctgagagt gatcgtgcgg ataggcagt gctatgaca cgtggacatc 360
 aaggctgccg gcgagctcgg aattgccgtg tgcaacatcc cgtctgcagc cgtggaagag 420
 acagcggact ctaccatctg ccacatcctc aacctgtacc ggaggaacac gtggctgtac 480
 caggcactgc gggaaggcac gcgggttcag agcgtggagc agatccgcga ggtggcctcg 540
 ggagcggccc gcatccgtgg ggagacgctg ggcctcattg gggggnnccc tttttttn 598

<210> 4023

<211> 650

<212> DNA

<213> Homo sapiens

<400> 4023

caggagggcc catgtgctta ccctgttttg cccacgaaga aacagctcag tgttgcggt 60
 caatgcccac atcacacagc atctagcacg taactgcacc ccgggagtcg tgggcatctg 120
 ctggcctcct gccggtctcc tgccctgctg acagcttgct gtgccgcctg cctgccccag 180
 tacgagcggg ccctggacgt ggcggcagag cccaagcacg agcggcagcg ccgagcccag 240
 atacgaaga acatcacgga gactctggtg tccctgaggg tccacactgt ggatgacatc 300
 cagcagatcg ctgctgcgct ggcccagtg atggggccca gcaggagct cgtatgccgc 360
 tcgtgcctga agcagacgct gcacaagctg gaggccatga tgcgcatcct gcaggcagag 420
 accaccgagg gcaccgtgac gccaccgcc atcgagaca gcatcctcaa catcacagga 480
 gacctcatcc acctggccag ctcagacgtg cgggcaccac agcgctcaga gctgggagcc 540
 gagtcacat cgcggtggt ggcgctccan gcctacaacc tgaccactgc cctcatgcgc 600
 atnctacgc gctcccgct gctnaacgag gagcccctga cactggcggc 650

<210> 4024

<211> 775

<212> DNA

<213> Homo sapiens

<400> 4024

tttgtgatgc agctcgccag gcctacgggg aggtaaagga cttgccaggc tgaagtaact 60
 tcagaagcag aaaaacggag gattaaaacc acaagtcgtt gtgatgtgaa atttcgtggg 120
 gcaagaaagg gccggaagta ggtagtctgc acggctctgc tagagagagg atcacaagat 180
 cacacaaatg tgatctactt atgactggaa aaaatgtgta ctttcagagc cagcttgagg 240
 cattccattg cctccaatat gagctcttcc cttaagatt gactataaat ctcttagtta 300
 caactcacat cccctttccc cagacaaaac cccacatagc ccggtgtgta ttactgaaa 360
 gcagtaagat actgctgggg ctttgggtgc aagatggaga gtgctcagag ataatgacag 420
 gggcctggtc ctgcagggcc ttacgtagaa agtcaaggaa tttattctct gagcaattga 480
 aaatcatccc gaaagatctg catttttagaa ataccatgtt gagtagttgc ataagaaacc 540
 agttaggagg ccccttttta ttggaggtag agaataatga gagactgaac tacagaagtg 600
 gggaaggaag acagctgtag atccaagaaa tagtatccgg aagagaggct tgagaagtga 660

tcaaggagaa ttccacagtt atcanagacc ctgtcttcct tgttcaccac tatattaccn 720
gaacataata caaataatgc tattgggtatt ggggtggcatt atttggntag taggt 775

<210> 4025

<211> 623

<212> DNA

<213> Homo sapiens

<400> 4025

ctggttcttc cagctggact ctagtgcagc tgagctcctc ccccagcccc ggctctgtcc 60
ctgcaccagg tgtccagcag gccctggaat ccgcaaaggc agaaggggaa gttgggggtgc 120
tgggtgctgg gcagggggtg ctgaggcctc acagcccggc ggcttggccc ccacccaccc 180
cacggtggtc ccgcgcccc aacttctct cctctcctgt ggtttctcct tccactcagt 240
gcctccccct cgggtagatc ctactaacag catcaaagaa ataatgaaat aatctctcct 300
tgggtgtgttc ttaccgtcct aataggcaca aggggactct tcagtgcatt ttccaaaacc 360
tgtacaaact ctcttgacat aaatgcagtg agttttacaat aaaatcgcag tgggaggtaa 420
cgtcaggctt cagaggcaga catggtcctg gagccttttg gaggggagga gaggagaggc 480
agcgggcgcg gggcggcgtc canggggctg aacgaggtct gggcaggang acagagctga 540
ccttgggctg ccctggcccc tgcgcaggac acacagtac cggggctggg gtgggcaccc 600
cggttctacc gtcnggagtc ngc 623

<210> 4026

<211> 622

<212> DNA

<213> Homo sapiens

<400> 4026

tactgtgtcc ggagaaactg tgattataca ccgcttctcg ttccccctcc tgtgccctca 60
gtgttaattc actttataaa aatataaata tataatatat ttttcttttt acaaataagc 120

caatggagat aatttagtat tactaacata gtatttatag gcttaagaca aatgtacttg 180
 tgggcgatca aatgtaatta ctgttacaga ctttacaaaa ccgtacgtgg ttctcaggca 240
 acacaaagta gagagggaat tctgtttttt aaaaactgtc aaaaaggaaa ttgagagtca 300
 tcctagactt aacatgcttg cgctcctcaac tcctgctttt cgttcccacc ccaactcccc 360
 ttttttgtct ccttaataaa tggctttatt tttttaattt ttaaaattct atattaatca 420
 agaggagaca ttaactttac tgctgacgca aaactgtatt cagctagatc cacaatatga 480
 aaatgtataa gctcaacatc aaattattta catcttctct tttttaactt aattagagtt 540
 ttagctcctg tgcctcattt tttacaatgt atgagaatct anatgtttan ctaacatctt 600
 ttcttttttg ggggaaaggg tn 622

<210> 4027

<211> 796

<212> DNA

<213> Homo sapiens

<400> 4027

gcggtaggtag ccggttgggg ccggtgtga ttgttatctt ggtgctgcag aggacagcag 60
 aagaggagat tgggtcagaa aactgccctg ccgcaccaga gcacagcgca ctagtgggac 120
 aggggtcctg actcagactt aactggctgt gtctcgtggt ttttactgt cctggaaaag 180
 gcctgaagtg gcaactcttc ccgttccttc atggatttga aggctctcct ttcttccttg 240
 tccctgatct gcaattcttc ccgttccttc atggatttga aggctctcct ttcttccttg 300
 aatgactttg catccctctc gtttgctgag agttgggaca atgttggtt actggtggaa 360
 ccaagcccac cacatactgt aaatacactc ttcctgacca atgacctgac tgagggaagt 420
 atggaggagg tgctgcaaaa gaaggcagac ctcatctct cctaccatcc gcctatcttc 480
 cgacccatga agcgcataac ctggaacaca tggaaggagc gcctgggtgat ccgggctctg 540
 gagaacagag tcggtatcta ctctcctcat acagcctatg atgtgcgcc ccaaggcgctc 600
 aacaactggt tggctaaagg gcttggagct tgtaccttca ggcccataca tccttccaaa 660
 gctccaacta ccctacagag ggaaaccacc gatagaattc aacgttaact acaccaaga 720
 cctggacaaa gtcattgtct cantgaaagg aattgacggn gtttctgtcc ttcttttctg 780

ctaggactgg taatna

796

<210> 4028

<211> 541

<212> DNA

<213> Homo sapiens

<400> 4028

```
attggagttc agctacaaa aggaaacctt cctctgggtc ctggagtatt tggcctgaaa 60
ttgggaactc ggaagttgct gctccagggc gctccctgcg gagctccgcc gcccgcctct 120
ccgcccggcc tttcccggcg tccccacgcg gggcgcaacc gcgagaaaga aacgcaggtc 180
gcaccgtcag cgcccagagc agcgccagtt tccgggcccg ggctgctctc ggagccatga 240
gctgcggccg cccccctccc gacgtggacg gcatgatcac cctcaaggtg gacaacctga 300
cctaccgcac ctctcccgac agcttgaggc gcgtgttcga gaagtacggg cgcgtgggcg 360
acgtgtacat cccgcgggag cccacacca aggcgccccg gggcttcgct ttcgtccgct 420
ttcacgaccg gcgcgacgcc caagacgccg aggccgccat ggacggggcg gagctggacg 480
gacgcnagct gcgggtgcag gtggcgcgct atggccgccg ggacctgccc cgcanccgnc 540
a 541
```

<210> 4029

<211> 762

<212> DNA

<213> Homo sapiens

<400> 4029

```
gagtgtccag tacaatggat aaaaataaat ccattatcaa cacatcacta acatttcaaa 60
atcttcatgg agaagattct gtaagtttct ggggagagag agaaaaaata catcacatac 120
agaggatcac ttaccaggac tgctttgaac ttaatagcaa tggtaaaagc aaacagacaa 180
gcaactactt caaaatgttg aaaagaaaat tatttccagc tttcaattct atactcagac 240
```

aagctatcaa acaaataagag ggagccagcc atttttagac atccagggtc tcatttacct 300
 tccatgtacc cttttcaaga agttaggatg tgctccacag aaacaaaaat aaaaccagga 360
 aatggaacac tttggaatgt agaaaatggg ataataca tagaggatag gcaagaggaa 420
 tttctgggag catggtcaag taggattcca gcaccacagt tgtgcttctt gatgtagaga 480
 gcagtcagtc cagaatcaag cagcatgact cacattgatg gctattatca ctaagatccc 540
 tgctgccatt gtatcatctt tttaatctga ggacattatg cccaggcaag cctggctcag 600
 attcttaccg gtatttgcct tgtcttgacc atgtggtgat gaaattcctg ctctcttctg 660
 tgctgngctg ctggccaact gaggacactc atttttaccc ttctttttca acctattcct 720
 gaaagctgat gttgggccgt tggtagctt aaagcnnaaa at 762

<210> 4030

<211> 704

<212> DNA

<213> Homo sapiens

<400> 4030

gtgtgaacgt gctgccgccg atcagtcacc cagtcggctg gagtcggagg cgatatttct 60
 aggggtgtac ttgttggggt cagggtgaagc accagccaca aaaacctaca aaagaaggga 120
 aattactgtc tttaaatatt aaaaaaaaaac aagatccatg agtgggcatc gatcaacaag 180
 gaaaagatgt ggagattctc acccgagtc cccagtgggc ttcgggcata tgagtactac 240
 aggatgtgta ttaaataaat tgtttcagtt accaacacca ccattgtcaa gacaccaact 300
 aaagcggcta gaagaacaca gatatacaag tgctggacgg tccctgcttg agcccttaat 360
 gcaagggtat tgggaatggc tcgttagaag agttccctcc tggattgccc caaatctcat 420
 caccatcatt ggactgtcaa taaacatctg tacaactatt ttattagtct tctactgccc 480
 tacagctaca gagcaggcac ctctgtgggc atatattgct tgtgcctgtg gccttttcat 540
 ttaccagtct ttggatgcta ttgatgggaa acaggcaaga agaaccaata gtagttctcc 600
 tctgggagaa ctttttgatc atggctgtga ttcactatca acagtttttg tggttcttgg 660
 aacttgnatt gcantgcanc tggggacaaa ccctgattgg atgt 704

<210> 4031

<211> 546

<212> DNA

<213> Homo sapiens

<400> 4031

```
gtgtgctcca cttaaatgag aaaagcaacg agcaataagc ccagggtgaa gatttggtta 60
cataccctgc ttctcaggtt ttgcttaagt ttagcgccca ccaggaagaa agaaaacgat 120
tatctgcctc cttgactttt gcatcatttg tctttcttct gatgaaagtg ggactaatca 180
ctgagttagg gtttccttat ttttagtcta caccatgttg ctttatccta aaaggataaa 240
tatgggctgt gtgatggttg accacctttc ttcttccttc tatgaaggtc tgaaagggca 300
caagacaggc aaaaaggaaa cagcttttct ttagtaacta agttgctaga tttttgatct 360
catggccctg agctacacgt gaatgacttt gacctgtaat ctgaaataag atagacttca 420
gagttcacct ctcccacat ttcactccaa aggtgagata aggtanagtt gctaaaggtc 480
agtatgaagg gcatgtggca ttttantgtt gacagtatgc cagctctaan acctgcttct 540
tcattct 546
```

<210> 4032

<211> 653

<212> DNA

<213> Homo sapiens

<400> 4032

```
tgacctaaaga ggtgagaagg aaccaccctc cctagagtct taggtactgt gaagcatggc 60
atccactctg caaaccatta aattcgaatc ccattttgtt gggtgattta tgtggcactc 120
ctggggcccc atgaagcaat tatatacaat cataccgttc accacttgatg aattcggtag 180
cagtatgatg tattgactga ggacaaagtc acaggtttga tctcgggtgct ctgctttgtt 240
cctgaccaga ttaaactggg gaaaaagttg gaaatggttc tgcaaaaatc tgtcaccatg 300
gtgggaaaaa cctaggctca tttccttctg ctgatgggtc tgtgttgcac ctagttttac 360
```


tttcaaacag ctgcagatat cctggaaatg ggaagtggaa gtgtctgaac tatagaggaa 420
 acaaggccca ggaaaggatt tctccagcca cgtggagctc cctgagcttc ctaaagatag 480
 gagtcccacc cttccaacct ccatccatga atagcaccaa catccacca gttgttcaag 540
 ccagaaaccc atccttcact tcttctctcc ttcctttac ctccacatn caaatccatc 600
 ancgagttca cttatagccg ctgcaatcat cctgaatctc tgnatctcat cct 653

<210> 4033

<211> 690

<212> DNA

<213> Homo sapiens

<400> 4033

gcgtcccggg agcccggcct cgtgcgccgc gctttgagca gcagactgct cgacaaacac 60
 tgcgccaaga gctcctcagc agaagctcct cgcatcagat cctctgtgct gggaatcctc 120
 cctctttgag cacactctgt gctcctcttc cagttacggt gcatgtgaag caatggtatg 180
 ggaaaattgt ttgcagaagg atgaaaaggc tttattgcca aactgaacac aggactcacc 240
 gctgtagata cttgcagaag cactgaagct cctggagggt ctcctttgca gtctggaaga 300
 ttcctctcac gagaaacaag tccactaagt gggcacagac atcctcacag caacgggcca 360
 cacggaccct ctggtctgtc tctactgcat tcctagaaac agggcaatca gcatggaaga 420
 cactgcactt ggggcccaca gacactgagg gcttgcttga aaagtgcaag agtcagtcag 480
 gcgcggtggc tcacgcctgt aatcccagca ctttggaagg ccgaagcggg tggatcatga 540
 ggtcaagaga tccagaccat cctggctaac atggtgaaac cctgtctcta ctaaaaatac 600
 aaaaaaatta gcctggtgtg gtggcggcgc ctgtagtccc agctactcgg gaggctgaan 660
 caggagaatg acntgaagcc cggaggcana 690

<210> 4034

<211> 605

<212> DNA

<213> Homo sapiens

<400> 4034

```

agctagcttt gcaatatggc ggccgaggcg gacggaccgc ttaaaccggct gctcgtgccg 60
attctttttac ctgagaaatg ctacgaccaa cttttcgttc agtgggactt gcttcacgtc 120
ccctgcctca agattctcct cagcaaaggc ctggggctgg gcattgtggc tggctcactt 180
ctagtaaagc tgccccaggt gtttaaaatc ctgggagcca agagtgtgc tggattaaaa 240
aaggaggatg aggcccgtcc cgtgaggctc gcgtccatga gggtttagagg tgggttaggg 300
gcatgggggc accagcaagg ggagggttgt atggagtggg agagccaggg ggcaggtagt 360
gggtataggt gggcagcagt tccccctgga gcctagggtc actctgaggg agggagcacg 420
gtgagggggc ttccagtttg cagtgggaag agctgcagag agaaacaaga ggtagaggg 480
cacttccctg ggttgagggt gagtctggcc agttctgggc agacagggtg gagcgtgcc 540
cccaccagc cctggctacc cancccgctg ggcgcanan gcatggaagc cgaccccggg 600
atgga 605

```

<210> 4035

<211> 637

<212> DNA

<213> Homo sapiens

<400> 4035

```

atgttgtccc ctcagcgagt ggcagcagct gcctcaagag gagcagatga tgccatggag 60
agcagcaagc ctggtccagt gcaggttgtt ttggttcaga aagatcaaca ttcctttgag 120
ctagatgaga aagccttggc cagcacccctc ttgcaggacc acatccgaga tcttgatgtg 180
gtggtggttt cagtggctgg tgccttccga aagggaagc ccttcattct ggattttatg 240
ctacgatact tatattctca gaaggaaagt ggccattcaa attggttggg tgaccagaa 300
gaaccgttaa caggattttc ctggagaggg ggatctgac cagaaaccac tgggattcaa 360
atctggagtg aagttttcac tgtggagaag ccaggtggga agaaggtgc agttgttctg 420
atggataccc agggggcatt tgacagccag tcaactgtga aagactgtgc taccatcttt 480
gctctaagca ctatgactag ttctgttcag atttataatt tatctcanaa cattcaagaa 540

```

gatgatcttc aacagctgca gctcttcaca gaatacggtc gtctggcaat ggatgaaatt 600
ttccaaaagc cttncagac actgatgntt ttgnta 637

<210> 4036

<211> 659

<212> DNA

<213> Homo sapiens

<400> 4036

aggaagtgcg cgcgggccccg cccccgccgg ttcgctctc tctgctgcgg cgcggggacc 60
gctgtgctct cggaagccat cttcgacaag agcacaggga aggttgtttt gaagacgttc 120
agcctctaca agaagctgct gactcttttc agagctggcc acgaccaggt ggtggtcctg 180
ctccatgatg tccgtgatgt gagcgtggag gaggagaagg tccggtactt cgggaaaggc 240
tacatggtgg tgctccggct tgcgacgggc ttctcccacc cctcacgca gagtgcagtc 300
atggggccacc gcagtgatgt ggaagccatc gccaagctca tcaccagctt cctggagctg 360
cactgccttg agagccccac agagctgtct cagagcagcg acagtgaggc cggtgaccct 420
gcaagccaga gctgacagcc ccaactgtgcc tgagcccgtg caccgccccac aggacccatg 480
gcacattccc ggtgtgcctg agcccgtgca ccgnccacag gacccgtggc acattcccgg 540
tgtgcctgag cccgtgcacc gccacaggac ccgtggcaca ttcccgggtg gcctgaacct 600
gtgcaccgcc acaggaccgg tggcacattc ccgngtgcc tgacctntgc accgncaca 659

<210> 4037

<211> 695

<212> DNA

<213> Homo sapiens

<400> 4037

agtaggaagc cgcggggtgg tggcgagaga ggacccaggt gtcctagcag tgggcgccgc 60
ggggcacacg ctgggccaag gtgcaggcgg ccagggtggg agactgttcg ccccgccctg 120

agtactccta tcttgtttct ccacctgttc gggagttgga gatgtgcacc taaaggaggc 180
 gcatctgggg acggacacat ctggcactga ggccctcgcc acctgcctcg ccacctggcg 240
 accctgaccc caccacactg ccttgaggta ggaaaaggag gctcctcaac cacaacttct 300
 gacctcccag ggtgtctgag gcctctaaag agcttagttt gcccctctgg gaagtgaatc 360
 cttggcttat ggtgccgggg ggaccctgga ggccccctca cacgaaggct gcttcttgca 420
 gagtgcctca aaagtagggc cccagggctc gcagcagcat gggcaccgag aaagaaagcc 480
 cagagcccga ctgccagaaa cagttccagg ctgcagttag cgtcatccan aacctgcccc 540
 agaacggttc ttaccgcctt cctatgaana gatgctgcga ttctacagtt actacaagca 600
 ggccaccatg gggccctgcc tggccccccg gcccggttc tgggacccca ttggacnata 660
 taagtgggac ncctggaaca gtcttgcaa natga 695

<210> 4038

<211> 483

<212> DNA

<213> Homo sapiens

<400> 4038

accctcggcg cgccgcgagg gatcagcgtc ctccagccgc gctgccccgg cccaccgtgc 60
 agctgtagcc gnggcgagg ggcgcggttg cgcagggcgc tgctgggccc tccattgttg 120
 agcgcgttgg gccccgccgg cgatgccgag cgccgncttc tcggagcggc ggcgaagttt 180
 gaacttggcg tcggcctgga gccccgagca gcccgggggc ggctgccgtg aggcgagcgg 240
 cgatgagatg tgtgcacaga cccatgccat gcagatactg gtgcctctaa cttcgtcagc 300
 ccttagaaca tgacttgctg tccccagtgg agaagaaacc agaagctaca gccaaagtatg 360
 tccccccaa agtccatttc tgttcagtgc ctgaaaatga ggaggatgcc tccctgaaga 420
 gacatctcac acctccccaa ggnaacagnc cacattccaa tgagaganag agcaccccca 480
 cct 483

<210> 4039

<211> 617

<212> DNA

<213> Homo sapiens

<400> 4039

```

actctgcccc acagccacag cccctgactg ccgcagcccc cacagagccc gccgcgcacc 60
ccacgtcccc cacgccagcg cccagccatg gaggccatca agaagaaaat gcagatgctg 120
aagttggaca aggagaatgc catcgaccgc gcggagcagg cggaggcgga taagaaagcc 180
gctgaggaca agtgcaagca ggtggaggag gagctgacgc acctccagaa gaaactaaaa 240
gggacagagg acgagctgga taaatattcc gaggacctga aggacgcgca ggagaagctg 300
gagctcacgg agaagaaggc ctccgacgct gaaggtgatg tggccgccct caaccgacgc 360
atccagctcg ttgaggagga gttggacagg gctcaggaac gactggccac ggccctgcag 420
aagctggagg aggcagaaaa agctgcagat gagagtgaga gaggaatgaa ggtgatagaa 480
aaccgggcca tgaaggatga ggagaagatg gagattcagg agatgcagct caaagaggcc 540
aagcacattg cggaagangc tgaccgcaaa tacnaggagg tagctcgtaa gctggtcatc 600
ctgganggtg agctgga 617

```

<210> 4040

<211> 670

<212> DNA

<213> Homo sapiens

<400> 4040

```

tcatgtgctc tgacgccctc ccattaggtg catccaagct gcaatgccca cttcctcctg 60
gcagggggga cccgcaggca cttctgctc agaggtgcac ttgtctggtg gccctgctcc 120
ttcctggtac tgttgacctt tctgtgtgtt tgttttaaat ctcttgcatg gtaaatagct 180
gcattttgtt actgataaga gtgagtttaa atccactgtc atatcttttg cgtctttgtt 240
acacattttg ttttttaaaa atcttctttc ttgtcctttt ttagattgac agtgtccctc 300
ttacctcact ttctccactc agtttgtaat cctgcagtct gttgcttttc ttttagcggt 360
tgccctaaag gtggctgcat gtgtcctcac tgaagtccag catgggcccc aaatgcaggc 420

```

tgaggctctgg gtctggctgg gctgctgggc gcccgagtca tcatgacccat tgttcctggg 480
cacagccggc gttgacttgt atttcctccg tgattaccgc ctggctcatc aatcactgtt 540
ttcgttttcc gtggaggcgt ggctcacaca aagggcaagc acggagtcac tgggtcctgc 600
aggactttcc aggtcaaggc anangagggtg tccggcccca acaggctcct gtgtgccct 660
cantccccta 670

<210> 4041

<211> 653

<212> DNA

<213> Homo sapiens

<400> 4041

caaggagaat gcgctcttca agcggatcct gaggtgttat gaacataaac agtatagaaa 60
tggattgaaa ttctgtaaac aaatactttc taatcccaaa tttgcagagc atggagaaac 120
cttggctatg aaaggattaa cattgaactg tttggggaaa aaggaagaag cttatgaatt 180
ggttcgtaga ggtttgagaa atgacttgaa gagtcatgtg tgttggcacg tttatggcct 240
tcttcagagg tcagacaaga agtatgatga agccattaag tgttacagaa atgcactaaa 300
atgggataaa gacaatcttc aaatcttaag ggacctttcc ttactacaga ttcaaatgcg 360
agatcttgag ggttacaggg aaacgaggta tcagttactt cagcttcgac ctgcgcagag 420
agcatcatgg attggttatg ctattgctta ccatttatta gaagattatg aaatggcagc 480
aaagatttta gaagaattta ggaaaacaca acagacatcc cctgacaagg tggattatga 540
atatagttaa ctactcttat atcagaatca agttcttcgg gaagcaggtc tctatagaga 600
agctttggaa catctttgnc ctatgaaaag canatttgng ataaacttgc tgt 653

<210> 4042

<211> 721

<212> DNA

<213> Homo sapiens

<400> 4042

```

aaaacccagt gactcacctc cgccgtgcta actcctcgct agctctccct ctcacacacg 60
ctcacacccg gctcgagatg gcggcggcgg cggcggcggc gggggactcg gactcctggg 120
acgccgacgc cttctccgtg gaagaccagc tgcggaaggt ggggggcggc ggcactgccg 180
gcggggaccg ctgggaaggc gaggacgagg acgaggacgt caaggataac tgggatgacg 240
atgatgatga aaaaaaagag gaagcagaag taaaaccaga ggtaaaaatt tcagaaaaga 300
aaaaaatagc agagaagata aaagagaaaag aacggcaaca gaagaaaagg caagaagaaa 360
ttaaaaagag gttagaagaa cccgaagaac ctaaagtgt aacaccagaa gaacaattag 420
cagataaact gcgactaaag aaattacagg aagagtcaga cctcgaatta gcaaaggaaa 480
cttttggtgt taataataca gtttatggaa tagatgctat gaacccatct tcaagagatg 540
actttcagag tttggaaagt tactaaaaga taaaattaca caatatgaaa agtcactata 600
ttatgccagt tttttggaag tcttagttcg agatgtgtgt atttcattgg aaattgatga 660
cttgaaaaaa attccaattc actgctgtgc tttgcantga aaaacanaag ccagaaaagc 720
n 721

```

<210> 4043

<211> 699

<212> DNA

<213> Homo sapiens

<400> 4043

```

attctcggga gaggaatcgg ttaggagaag ggggattcct cactcagctg tgcgctctga 60
tttcgtgcgc ttctcgtcc ttcatgttgg atggccagtt tttcgtttgt gcgtcatcct 120
ctacctgaga aatggtcgct tgcccctagt ctagacacgc attaaagggc agtatattaa 180
gtcagttggc aagcagtgga ataagatttt tgtaaagaaa ccttgtgcag catggattct 240
ctaccagatg aattttttgt gaggcacctt gctgtggagg atcagaggaa ggaagaaact 300
gagaataagc tagaaaaatc atctggtcaa ctgaacaaac aggaaaatga catacctact 360
gatcttgtcc ctgttaacct actattagaa gtgaagaagt tattaaatgc aattaatact 420
ctaccaaaaag gtgtgggtcc tcacattaag aagttcttac aagaagattt ttccttccaa 480

```

actatgcaga gagaagttgc agctaacagc cagaatgggtg aggaaattgt tcctgctttg 540
actttacgtt tcttgattac acagctagaa gcagcactta ggaacattca agctggcaat 600
tataccgcac accagattaa tattggttat tatttgacat tactggnttt atatggagta 660
gcnctcactg aaagangaaa gaaagaggat tattcagaa 699

<210> 4044

<211> 647

<212> DNA

<213> Homo sapiens

<400> 4044

attgagatta cttcagtgga tcttgctctg ggcaatgaga cgggaagatg tgttggtttta 60
aattggcagg gaggaggagg agatgctgct tcctcccaag aagccttaca ggcagctcgg 120
tccacaatga tcatatccag agtcccaaac atttctgtac atctgctaca tgaaccccct 180
gcactgacta atgaaatgta ttgtttgggt gtgactgttc agtcccatga aaagacccaa 240
atcagagatg tgaagctcac tgctggctta aaaccaggac aggatgccaa ttttaactcag 300
aagactcacg tgactcttca tggaacagaa ctgtgtgatg aatcctaccc ggctttactc 360
actgacattc ctgttggaga cttacatcca ggggaacagc tggaaaaaat gttgtatgtt 420
cgctgtggaa cagtgggttc cagaatgttt cttgtatatg tttcttacct gataaatata 480
accgttgaag aaaaaggaat tgtttgcaag tgcacaagg atgaaactgt aacaattgaa 540
acagtctttc catttgatgt tgcggttaaa tttgnttcta ccaagtttga gcacctggaa 600
agggtttatg ctgacatccc ctttctgntg atgaccgncc ctcttaa 647

<210> 4045

<211> 758

<212> DNA

<213> Homo sapiens

<400> 4045

gctccaactc ctgcagagct gagccggagg ggaatccgga agggacacgc tgaacaggca 60
 cagaaatgaa taaaagtcgc tggcagagta gaagacgaca tgggagaaga agccaccagc 120
 agaacccttg gttcagactc cgtgattctg aagacaggtc tgactcccag gcagcacagc 180
 ccgctcacga ttccggctac ggtgatgacg agtctccgtc aacctcgtct ggcacagctg 240
 ggacctcctc tgtgccaggg ctacctgggt ttactttga ccctgaaaag aaacgctact 300
 tccgcttgct ccctggacat aacaactgca acccctgac gaaagagagc atccggcaga 360
 aggagatgga gagcaagaga ctgcggctgc tccaggaaga agacagacgg aaaaagattg 420
 ccaggatggg atttaatgca tcttccatgc tacgaaaaag ccagctgggt tttctcaacg 480
 tcaccaatta ctgccattta gcccacgagc tgcgtctcag ctgcatggag aggaaaaagg 540
 tccagattcg aagcatggat ccctccgcct tggcaagcga ccgatttaac ctcatactgg 600
 cagataccaa cagtgaccgg ctcttcacag tgaacgatgt taaagttgga ggctccaagt 660
 atgggatcat caacctgcaa agtctgaaga cccctacgct naaggtgttc atgcncgaaa 720
 accttacttt accaaccgga aggtgaattc ggngtgct 758

<210> 4046

<211> 492

<212> DNA

<213> Homo sapiens

<400> 4046

gttgtatatg cttttttttt ttccaaataa acttgtcacc ctgcatgccc ttggcaaata 60
 agtgaagcag aaataggaac acagtccaca ttcaagtga ggaacagtgt atctttaaga 120
 gctgaccttt gggtgacctg gaaaggggga aagatggcta agcatggaga gaaacgaggc 180
 aagagacaag ctatgataca acaccgcttc agcccctgcc ctcaatagca cacaaccac 240
 atatcagctt tctctagaga aggaacctac tgtttagtgc tctcacttt gcaatgtttg 300
 tgctacgcca gaatttctcc agtttttttc attatcatcc ccctgagaaa aaaattacat 360
 tgaatttaaa ttttcctaa taagagaaat taaatatgaa agaataggat ttgtttgggt 420
 aagattgagc ttgtgaaggc cacgaacctat tattctatct aaggtgtgtg ttttgnnttg 480
 gtnttttttg gn 492

<210> 4047

<211> 386

<212> DNA

<213> Homo sapiens

<400> 4047

```
gagtctggcc tgcctgggct cggggtgggg ggtgtttaca gacgcaccaa ggcaggagag 60
atggaagccg cccagagaac tgccactcca taacctgtgg gcatccaggg gtgagcggca 120
gcgatggcgt cccatggagg aaacacactg gaaatcgtgc agaaaatggg aagatgcagg 180
ctggagtgcg gagaaagact gagaccctgc ctggtagacg gcaccgtcac agcagccgtc 240
tgcctgctan gaggagcgtc tccaccagca acaggccggc ccctgaggga gacagcagag 300
agctggagtc ctggccagcc aggcggggat ccttcagcan gacacanggg acacagcagg 360
caacaggagc tcanaacgct ctcagc 386
```

<210> 4048

<211> 712

<212> DNA

<213> Homo sapiens

<400> 4048

```
tgttataggt gagacagttg tagtaacatc tttctaagta gacacaacct taaacaagat 60
gaatatgttt ttataatgtg ctagagcagc ttgtgtgtag gacttaagta tgtatcacta 120
aaacctgaaa cttaaatttt tctgaaacag aagcagtgaa gattctccct ggtaacaact 180
taagtaaadc aagccaacaa atacgagtc aaataaacat ttaatgagaa aatactgcct 240
actttttaat ttattgtta atatcctttt gtattctgta ataattactg catgtggagt 300
gatttatacct tcacctttgg tgatctggta acttagcaga atgcttgtct gcagaacagg 360
tatgtgctaa atgctgaaaa gcaaaggaca ttcagtctca ctaaaaatgt ctccaacaa 420
gcaggctgct ggggggtttg tagcgcttgt aggggtggctg agttatttct ttctgcaaac 480
```

actcctgtca gcattataga gacttgcact atctgttaag taaatgtgac ttaggagaag 540
 gaatgacacc acccattcat ggggtcatgg ctgcaagtta ctgccctact ggttttctct 600
 ttacctgata actctcaata attctaaagt ttatcttana gaaaagtctt tgagtcacct 660
 attttggaat ttgagcccat gaaatgataa gcnccctgcan tttggatcac gt 712

<210> 4049

<211> 675

<212> DNA

<213> Homo sapiens

<400> 4049

acacggcggg ggcgccctcg gaggcaccgg acctcagctc tctggacttc ccgggaacct 60
 ggctccccgc gcgtgggtccc gggatttagt cgggcgctcc ccacctctgg cagctgcggc 120
 cccggactcc gccagcgctg tcttctctcc ctacaggtcca gccgccgcag ggaatgacgc 180
 cgggtgctcct acagccacgg ctccgggcgg ggaaggcgag cccacagcc ggccctgcga 240
 cgccccgctg ggcagcaccg ataaggagct gaaggcagga gccgccgcca cgggcagcgc 300
 cccacagcg ccagggaccc cctggcagcg ggagccgcgg gtcgagggtta tggatccagc 360
 gggcgggccc cggggcgctg tcccgcggcc ctgccgcgtg ctggtgctgc tgaacccgcg 420
 cggcggaag ggcaaggcct tgcagctctt ccggagtcac gtgcagcccc ttttggctga 480
 ggctgaaatc tccttcacgc tgatgctcac tgagcggcgg aaccacgcgc gggagctggt 540
 gcggtcggag gagctgggcc gctgggacgc tcttgggtgt catgtcttgg agacgggctg 600
 atgcacgaag tggatgaacng gcttatggga nccggcctga actgggaaga ccgccatnca 660
 aaaagcccct gggtgta 675

<210> 4050

<211> 633

<212> DNA

<213> Homo sapiens

<400> 4050

```
gtctcttcat ttgtgatacg taaagtcctg tgttacctag ataaatgtag gtttgatttc 60
ttggaagcaa tcacttaaga ctttccattt tcttcaaagc atcttactta acctgcatgt 120
gggatctgta ctgagcaatt agagattcaa aacaactgtc acacacgaca gaggttggtaa 180
ccgcccaca ggttcacctc ttccgccgcc tacacagagc cgatttatca agacaggaat 240
tgcaatagag gaagagtaca cagagctgct tgtgcaggag actggagtct tattagtact 300
caaatcgatc tccctgagca ttccggggatc agagttttta aggataattt ggtggggaggg 360
ggaaggccag tgagtcaagg gtgttgattg gttgggtcgg agatgaaatc ataaggaatt 420
gaggtgtcct tttgtgctaa gtcagttcca ggggtgggggc cacgagatca gatgagccag 480
ttaatcgatc tgggtgggtgc cagctgatcc gtcgagtgc ggtctgcaaa atatctcgag 540
caccgacata ggagcagttt anggagggtc anaatcttgt agcttccagc tacatgactn 600
ctgaaccata attctaattc tgaggctaatt ttg 633
```

<210> 4051

<211> 721

<212> DNA

<213> Homo sapiens

<400> 4051

```
atTTTTtattt tacagacggg aaagactgag taaatgtgag aaaattagct gaatagccac 60
tactTTTTttt ctggcataac ctacccctgc ttaagaactt ccacgggcct ttgattgggg 120
TTTTtaacca cTTtaacaaa ccatgtaacc ctgagagcta tgcttggttg acaacatggt 180
gtaatgtacc acaggctgta gagccagata ctggggtttg aatccttatt caacatggga 240
acataggagc tatatgacat taaacaactg tcttgtcttc actaaatttc tatcaactca 300
tttgtattgt ggggataata gagcctgctt ttacagggtg agtgagataa aatgaataaa 360
gtgtctagac aatatcatag catagtaggt attcaatcct ggtgagatcc tgtttataag 420
gccactact ttgtcttatt aggcagaata acaaaggaaac aatattttaa aagcaactag 480
ctcaaactctg tccccagaag gaaaaacata tcttggcctt ggtccttaaa aaatttcctc 540
tggcactgtc tagaatcagc acctaaagaa acaggcgttt agtgttgact ggaataaaaat 600
```

ggaatcgggt gctggtgcag ggagattgan cagggatgaa nagagaaaat cacagagtgg 660
 aaagggatca ggtttggana agttcaatgg ggggcttgcc aggacataag cctaatatgt 720
 g 721

<210> 4052

<211> 648

<212> DNA

<213> Homo sapiens

<400> 4052

aagaaacaat ggctgaaaac ataatgaaag acattaatct acacatacaa aaagctcaat 60
 gaattgtaag tagggatcaac tcaaagagac actcagtgtg acattgaaac acattataat 120
 catactgtcc aaaagcaaag caaatcctga aagcagaaag agccactgga cacgtacaag 180
 aaatcttcga taagattaat agccaatttc tcatccaaca tcatggaagt gagaaggcaa 240
 tgagatgaca tattcagtgt gctgaaagga aaatcttggg tggctcttgat actttagat 300
 gttcttctgt gtctgagcat tgaagagtta ggtatttatt atagtcttca cagtctgtgc 360
 ttgtttgtac ctatccttct tgggaaggct ttccagatat ttgaatggct tgggtgttgt 420
 gctctaagct gtatatgctt aaggattcac cccaagccca ataacacttt ggtttttttt 480
 tagcctcata gagttactgc cttgatggtc ttggacaaga ttcaggattc tctggattac 540
 catacagaga ctcttgttca ttccgttact gntccccaaa caaaggaggt ccctttctct 600
 gntctaagcc cctgaactgg gggatgaaagg acacaagcnc ccctgttg 648

<210> 4053

<211> 573

<212> DNA

<213> Homo sapiens

<400> 4053

aatactatgt aagtgatgat gtactcttct cagtgtattg gcttggagat acaggatgtc 60

agtttgtcat gttattttat tagaaatgat aattctaatag ccttagttgt gatgggtgtcc 120
 tttgggtttc tgcactgcaa agttgctatt ttttcctttg tatttaataa gtaatttgtg 180
 gaaaggctaa atacctgtt cctcttcaaa ctttttaggg atttttagtgc cagtataat 240
 tttttcttta gtcagttatt actgtaatgg ctgcaaaata gtgattatgt aactcttatt 300
 tctcttaaca tttattagtt ggcattctac tttaaaaatg agctttccca ctccgccact 360
 tatcacttag actcataaat tcttatttta tgtgtgagaa agtgtgtatg tgtgacttac 420
 aaatgtagct tatttgata catgggtgtt aaaccgtatg tatgatttat atatactgta 480
 attcattttg atgtgaacat cagattgttc ctcttcaaac ttgctctgtg accttgata 540
 tgtctccatc atgtnnnntt ttttaggggtg ttt 573

<210> 4054

<211> 773

<212> DNA

<213> Homo sapiens

<400> 4054

ggtaatgatg agggataggt agaaaagatg ggaaggggtg cagctttag ataacctaga 60
 ctagcagggtg tatgacttct agtctctgaa ctggagccat ctgagatcag tttgagatat 120
 ggtgtcttat aaatgtattg agagagggtg aggagttgtc tatagaatgg aatggagtga 180
 ggtagagat cagtggaag gaagaccaca taaagggttt tgcacaaact tgccttgatg 240
 gcaagtcctc aaaagtacaa ttatcaagct ttctgtttta acatgcataa gtcagtaaat 300
 ataaacatta aaatttgccc aagactctta actcagttgt atttcataat taaagtgtac 360
 attaaaaagc caaactagtc atgaaagtat tacatacagc aagggcagtt tagataagtt 420
 aatgttgcta tgggaacccc agcagatctc cttgtgtctc cgtttaaaaa tcatggccca 480
 aggtgggttc aaaaacaaca gaaggtaaaa ttattctcac attctcacac atgtaaattg 540
 tactgtctct ctcagttcta aatagcggat tcaagccagc ctcttgactg gcacantaaa 600
 attcggcttc gtgtctttct ataatgtatt acagcatgtg agtttaacct ttagaagctt 660
 caaaaataca tcaaccaaatt ttgggactgt gagacacaaa ctgggtctct ttgggctctg 720
 tccagcatag ccttcttatt ccacatgggt tgcncacang gccatttnca cca 773

<210> 4055

<211> 584

<212> DNA

<213> Homo sapiens

<400> 4055

```

gatcagaaag agaaggccac ctcctgggc aacatgaagg actactggga ttacttctgt    60
gcctgcctgg ccaaggtgaa aggagccaat gatgggatcc gatttgtcaa gtctgtctca   120
nagctccnaa catccttggg gaaaggaaga gcatttattc gctactcctt ggcgaccag   180
aggttggcag acaccttaca gcagtgttc atgaacacca aagtgaccag tgactggtac   240
tatgcaagaa gcccctttct gcagccaaag ctgagctcgg acattgtggg ccaactctat   300
gagctgactg aggttcagnc ngacctggcg tcgaggggct ttgacttggga tgctgcctgn   360
ccaacatttg ccaggaggac gctgaccact ggctcttctg cttacctgtg gaaaccccct   420
agccgcagct ccagcatgag cagcttggtg agcagttacc tgcagactca agagatggtg   480
tccaactatg acctgaacag cncctaatac aacnaggcat tggagggctt tgatgagatg   540
cgactagagc tggaccantt ggaggtgcgg gagaagcagc taca                      584

```

<210> 4056

<211> 664

<212> DNA

<213> Homo sapiens

<400> 4056

```

aaaaaaaaaa aaaaaaaacc ctgctctatt gcaattccct attatatctt gcatcagaaa    60
aacaaacaaa acaaaaacaa ctttaaattg ttgtagcaga accccgggtc atctcatgtc   120
agaaaccttt aatccaggcc taaatttgca tagacctgac attcagctgc cttgcagttg   180
cttcctccca tgagccaagg tgggtgtcaga gggcaactgg atgactcgca gtaccacagc   240
actgggacag acagaagcca cacctttctt ttgggttttt gccaaagcctc ctccatctcc   300

```

catcagtgtgct gtgggctggc tgcaagcctc gaaacagttc tcctggaagg gaggtttttg 360
 ctttaccccc gccagcactt ccgcacacaa tcatagagaa cctctctgct ctctgctggc 420
 ctacagcttg tctgtttctc aagcagaggc aggaagagct agtcttagca tttatatattt 480
 aataggaagt tgactcccag catgtaaaag tgatccacgc agccggagtg tatgccggga 540
 gctaagtggg ctatgggtga acatatccca ccttgcttcc tgagtccttg gtcccaatct 600
 tctnatnngg tcctctcggt ttaaattttt tcccccaac tntttgatg taagagtcag 660
 tttg 664

<210> 4057

<211> 547

<212> DNA

<213> Homo sapiens

<400> 4057

agagcgggggt cccggcaccg cggcgctcgg gtgttttttg gggcccgggt ggagggcccg 60
 ggtgccgggg cccaaggtgc ggcctcgcta gcgggagagg gagcgggatc accggcccgg 120
 agagagctct cagggccaga gcggggcagg aggatgcttt cccagcccca ccatggagct 180
 gcgctgtggg ggattgctgt tcagttctcg ctttgattca gggaatctag cccacgtgga 240
 gaaggtggaa tctttgtcca gtgatgggga aggggtagga ggtggggcgt cagccctgac 300
 cagtggcatt gcctcttccc ctgactatga attcaacgtg tggacccgac cagactgtgc 360
 tgaaacggaa tttgagaatg ggaacaggtc atggttctac ttcagcgtcc ggggaggaat 420
 gccaggaaaa ctcatcaaga tcaacattat gaacatgaac aagcagagca agctgtattc 480
 ccagggtcatg gccccctttg tgcgcacact gccacccgg ncacgtggg aacgcattnn 540
 agaccgg 547

<210> 4058

<211> 632

<212> DNA

<213> Homo sapiens

<400> 4058

tttgatgctg tcttggaggc cctgagccgg ggtgagcccg tggacctctc ctgcctgccc	60
cctncacccg accagctgcc cccagaccca ccgtcaccac cgtegcagcc tccgaccccc	120
gctacggcgc cctccacaac agaggtgccc ccacccccga ggaccctgct ggaggcgctg	180
gagcagcgga tggagcggtg ccaggtggcc gcagcccagg ccaagagcaa gggggaccag	240
cggaaagctc gaatgcacga gcgcctcgtc aagcaatacc aagatgccat ccgagcccac	300
aaggctggcc gagccgtgga tgtegtgaa ttgcccgtgc ccccaggctt cccccaatc	360
cagggcctgg aggccaccaa gcccaccag cagagtctgg tgggtgtcct ggagactgcc	420
atgaagctgg ccaaccagga tgaaggccca gaggatgaag aggatgaggt gcctaagaag	480
cagaacagcc ctgtggcccc cacagcccag cccaaagccc caccctcaag aactncccag	540
tcgggatcag cccaacagc caaagcgccc cccaaagcca catccaccag agcccagcan	600
cagctggcct tcctagaggg ccncaagaac ag	632

<210> 4059

<211> 778

<212> DNA

<213> Homo sapiens

<400> 4059

aaagaaagaa tacatgtgaa gaacttggaa cagtgcctag aacatagtat aggggttcag	60
gtgttactaa ttataattat ttataattgt tatttttatt tataattata attgttaact	120
tttactgtta ccattatttc ctggctttac attggtttaa gataatatct gtagggtata	180
gtataatgtt atccaaatat taaattacat atagtatgtt tagttttatt tagcattgtt	240
aagattactc agtgtcaaag ggagcatttt aaaattattt agtttttgag acggggctctc	300
acactcaccg aggttggagt atagtagcac aatctcagct cactgaagcc tctgcctcct	360
gggctcaagc agtcctcca cctcagcctc ctgagtagct tgagaataca ggtgtgcaca	420
ccacactgca ctgcttttta aattttttgt agatgtgaag tctcactgta ttgaccaggc	480
tggctctgaa cttaggagat caagcagtct tcctgcctca cctccaaag gtgctgggat	540

tacaggcatg agctactgca cctggccaga ggcaacatta aaaaaaaaaa aaaaagattg 600
 ntgaggcttt ttaactcaca actcttggag acctaaaact tctggtatct caggcccttg 660
 gtaaactctga agcttcagag aaaaganggt cagggggtag gacatggacc atttcagtta 720
 tggatatagac cttaatntgg gaacccctta tattagggcc ttgacatttt tattnгаа 778

<210> 4060

<211> 719

<212> DNA

<213> Homo sapiens

<400> 4060

gctgntactt ctgttactcc ggttgttctg gcttgcanaa aacctttcga tgaaggtaag 60
 ggtaggaagc ataaattctc tacgaggtaa tgtcccctga ggagagaggt gaagtgtгаа 120
 tctgtгаа atccagggtg cctgtgaggt caagcgagga tcaacacaaa cattttccca 180
 gcatgcgcga cggcgggaga gttcgtgaga cttttgгаа cacttcacgc cctacactta 240
 gcattcagtt tggtcacttc atccctcttc taggtgctag tcacaggccc accccaacct 300
 cataggatgt gtttgcacac agggccactt aataaatgtt atggctgcct tatttgctgt 360
 gaactcttgt ctgtattcct gggccttggt agacctggga tgcccagtgg ctctgccttt 420
 cactgtaggt tttgagtgat gaggtгаа ggaagcagta cgatgcctac ggctctgcag 480
 gcttcgatcc tggggccagc ggctcccagc atagctactg gaagggaggc cccactgtgg 540
 accccgagga gctgttcagg aagatctttg gcgagttctc atcctcttca tttggagatt 600
 tccagacccg tgtttgatca gcctcaggaa tacttcatgg anttgacatt caatcaactg 660
 caaagggggt caacaaggag tcaccgtгаа cntnatggac acctgtгаа cctгааcgg 719

<210> 4061

<211> 638

<212> DNA

<213> Homo sapiens

<400> 4061

```

ttatcgagct gtttggttga tagtttattg tatagcaatt taagcaaata tcatttgaat 60
tatgatacag tttgaacatt ccaaatctga aaaatatctg aaatctgaaa ctcttctggt 120
cccaggcatt tcagatgaga gataacttaag cctgtactaa ttttaattatg ttaaaggacc 180
caatatcttt acaaagaaag ctgctttttc cctggggaca actaaacata tgtgactatt 240
ttttcttagt ttttcttcct ctaaacttca aggatctgtg tgtatgggta ttgccaccac 300
cattgtcttc acactgacag tgaacatagt ggaggagaa gtaggggctc tctttcttaa 360
gatgtgactg atgtaacccc ataagtcctt tgggagtgtg tgttcatttt aggaaccag 420
tggcagtgtg gtggaataag aagggtttt gaccaggaa ggcatggctt ggtgaactgg 480
ctctgctact tattagctga tgcagtcag agaaactttc ttaggtcca aggccttca 540
gtttctcatt ggtaaaatta aagnaagaaa attttccctt ancattggtg taaggagtna 600
atgggaattt atatagaaca tctagcaaag taaatttg 638

```

<210> 4062

<211> 628

<212> DNA

<213> Homo sapiens

<400> 4062

```

gaaaaaata aatgatcaaa atgagttcat acaaagagga atcaaagttc agagaaggaa 60
gggggaattc ataccagtag aaagtaaaag gtcactgagg atggagtggg gtaacttgac 120
ccaagccttg aaggacaggg agaatttggg caagccagac aacaaatcag acttcccaga 180
tggtgacatt attttttag gtggtcttgt gggacattct ctgcctatct gaaggttaaa 240
gaagcatctg acaattcttc atcatgctga cattttcaaa ggctaagtag ttctcatttc 300
aaaacataga gccttgggag ccctagaccc ttttttttaa attttagtcc acttacagct 360
taaactctgct gtggctacct gctctgctta cagacacttc ccaaagcttt cagtatccag 420
ggtccctaag aagtggaggg ttgctcgaag tgaggagccc acagttcccg aatctcacta 480
gaaaatccca atgtgctaaa tcgtgctatt gatcctgact ggggagccag ccagctcaat 540
attggaggtg gcttttctag taagggtaca gtacaggtta gaattgaatt aaattttgct 600

```

gtgccccang gtagactatt ngggtgng

628

<210> 4063

<211> 545

<212> DNA

<213> Homo sapiens

<400> 4063

aggagagcgt ccggattccc tgctctaggt cgcggcgga cagtgccagt gggcgtgtgg 60
ggcggngcag ggcaggggaag ggaagggcgg agctggggtg agggccaag gggcccagga 120
cttgccggc gtgatctcag ctctgcanac cctgcggtgc tgggagccac catggagagt 180
aggtgctacg gctgcgctgt caagttcacc ctcttcaaga aggagtacgg ctgtaagaat 240
tgtggcaggg ccttctgttc aggctgccta agcttcagtg cagcagtgcc tcggactggg 300
aacacccaac agaaagtctg caagcaatgc catgagggtc tgaccagagg gtcttctgcc 360
aatgcctcca agtggtcacc acctcagaac tataagaagc gtgtggcagc cttggaagcc 420
aagcaaaagc ccagcacttc ccagagccag ggactgacac nacaagacca gatgattgct 480
gagcgcctag cacgactnec ncaggagaa aagcccaagt tagtccccctc acaggcagag 540
ataga 545

<210> 4064

<211> 672

<212> DNA

<213> Homo sapiens

<400> 4064

aacaaaaaga gtcttcagaa actttgctag acctgaagta cttgaacctg tgtccccctga 60
atctttctta cagcatctgg gacaaatccc tggccctgtg acatccgaag cagaactgtg 120
ccctgctctc tccttctgtg atgaccaagg atggtgaact caagttgttc tctacaagcc 180
aggccagcaa cctaaatact tggagaggaa ctttagaaa ctataatcct gacaaaatag 240

aaaagtttcc cataggggca taccataata ctataataac ctcccaggaa ctattgtttg 300
 ccaaaatgta gttaatatat tttaagatat atgctttttt gcataggact agaaccagaa 360
 aagacaccaa atgccccctt gacatcaatg tcctttctag tgggacaatt tggctctccat 420
 taatgccaaa cctttctgaa caggatacat ggctttttaa gggcagatgt ttctcctgct 480
 gctagaagtt cctcagttta ctagagcaca atgaggagag tattcaacct ccctactgcc 540
 aaggaattcc ctgcttctcc cccaccgcca tcattcttgc aagctatcan aagcaacctt 600
 ctagagataa tctaacaatc ctgattanaa ttgctcccat atccctgggtg accacaggct 660
 tnattcaaat tg 672

<210> 4065

<211> 560

<212> DNA

<213> Homo sapiens

<400> 4065

atttttggct gcctctgtcg gtctgttcag ttaccacgtg aaccgccgac ggagaccctg 60
 agtgggggag gcggcggcag cgtttaagtga gaaaggaaaa aagacaacga ggaaaaagga 120
 ggtgtccggg tagggcaacg cggcgacacc cgaggcctgg tggcggcggc ggatcgagat 180
 attcaaggct gaagcagcta cggaacggca gcggcggcgg tcggacaaac tgactgaccg 240
 agccgggtgg tggcgggagc agcgggagca gccggaacga tgccggccgt gaggctcccg 300
 cccaaggaga atgcgctctt caagcggatc ttgaggtgtt atgaacataa acagtataga 360
 aatggattga aattctgtaa acaaatactt tctaattcca aatttgaga gcatggagaa 420
 accttggcta tgaaaggatt aacattgaac tgtttgggga aaaaggaaga agcttatgaa 480
 ttggttcgta naggtttgag aaatgacttg aagagtcatg tgtgttggca cgtttatggc 540
 cttcttcana ggtcanacaa 560

<210> 4066

<211> 690

<212> DNA

<213> Homo sapiens

<400> 4066

```

gcgccgccac cgtctgaact aggatgtccc gacatgaagg tgtcagctgt gatgcatgtt 60
taaaaggaaa ttttcgaggt cgcagatata agtgtttaat ttgctacgat tacgatcttt 120
gtgcatcttg ttatgaaagt ggtgcaacaa caacaaggca tacaactgac cacccaatgc 180
agtgcataatt aacaagggtg gattttgatt tatactatgg tggggaagct ttctctgtag 240
agcagccaca gtcttttact tgtccctatt gtggaaaaat gggctatacg gagacatctc 300
ttcaaggaca tgttacttct gaacatgcag aaacatcaac agaagtgatt tgtccaatat 360
gtgcagcgtt acctggaggg gatcctaata atgtcacgga tgactttgca gctcatctta 420
cacttgaaca cagagcccct agagatttag atgaatcgag tgggtgttca catgtacgta 480
gaatgtttca ccctggccgg ggattaggag gtcctcgtgc tcgtagatca aacatgcact 540
ttactagcag ttctactggg ggactttctt cttctcagag ttcataattct ccaagcaata 600
gggaaccatg gatcctatag ctgagctttt atctcaattn tcaggagtga nacnttctgc 660
aggaggacag cttaattcct ctgcccttcc 690

```

<210> 4067

<211> 605

<212> DNA

<213> Homo sapiens

<400> 4067

```

atcttaacag cgcgttcccg ttggcgtctg aggaacagca tctctgcctt cctgttcacg 60
gtgaccttcg cttggtgtcc tcctggcctc agcaacctga caattctgtc gtgtcccgat 120
catctttctc aagatgtttt ctgtcttcat gagtcaaaat ttgaagagga aaggatgggtg 180
gctgggtggt tgacaaatta ctctcaggac tcagtacct ttgaggatgt ggctgtggac 240
ttcaccacagg aggagtggac tttgctggat caaactcaga gaaacttata cagagatgtg 300
atgctggaga actataagaa tctagttgca gtagattggg agagtcatat taatacaaaa 360
tggtcagcac ctacagcagaa ttttttgcag gggaaaacat ccagtgtggt ggaaatgaat 420

```

tcagagtaaa agggagaatc tcaatgaaat aaatttggaa aacttctatg aaccatcatt 480
 aattttcacc aacaggagag aaaccatttt gganaggaac tgtttgactt tanccaatgt 540
 gaaaaacctt gagtgaacac tcatgcctta agactcacag gagaacttac tttanaaaga 600
 aaacc 605

<210> 4068

<211> 648

<212> DNA

<213> Homo sapiens

<400> 4068

acaagcatgt gccaccacat tcggctaatt attgttacag atggggctct cctgtgttgc 60
 ccagctggtc tcaaagctct gggctcaagc agtcttcccg cctcagcctc caaaactgct 120
 gaaactacag gtgtgagcca ctgtgccag tctacacaat ttaatcctaa aatactttga 180
 agggaagaaa gaggaacga gtaaaaactg aaataatgca caatttctag ccttttgaaa 240
 taaattctca gaaaactggg agagcgaagc acatttaaga gtaaggtgac taaaaatgag 300
 ccattgggtac caggtaccag tgacattttt gcctcaaagc ttttatttat ttcaaaaaat 360
 tccaaatcta cagaaaaact gaaagaatga tcctctatat atccttcatg tagactgac 420
 aatcatgaac atgtgccag tttccctcct ctccctctct gtgtatactc acacacaatt 480
 tttgctatgc catttgaaag cgatttgcag atatcacagc acttncctgc taaatgtttc 540
 agaagcatat tctaaaaagt cgttttcgta cctatccata acaccattct cacataagaa 600
 aactgcacc agtgactttt tttttttaag ctaaaagacc ntnnagac 648

<210> 4069

<211> 612

<212> DNA

<213> Homo sapiens

<400> 4069

aggtgcgcat gcgcagtgcg cgtctgcgag accgacttgg acggagccga gctgaggctc 60
 ggcttcctgc tgatggtcag ggttttggca actccccggt gtgagagggg tagggagtgc 120
 tcccggcggc gacgggacct taaggcctct gtgtggcaga aggatcagct ggtgacacag 180
 ccgcactggc aagaaaatgg acccaccttt tccagcacac cttaccgnta ccaggcctgc 240
 aggtttgggc aggttccaga ccagcctgct ggcctgcgac tnttcacagt gcaaattccc 300
 cacaagcgcc gggcgccaga gctgtaccgg gctccgttcc cgttgtacgc gcttcaggtc 360
 gaccccagca ctgggctgct catcgctgcg ggcgaggag gcgccgcaag acaggcataa 420
 agaatggcgt gcactttctg cagctagagc tgattaatgg gcgcttgagt gcctccttgc 480
 tgcactccca tgacacagag acacgggcca ccatgaactt ggcactggct ggtgacatcc 540
 ttgctgcagg gcangatgcc cactgtcaag ctncctgcgt tccangcaca tcaacagcag 600
 ggcaacaagg ca 612

<210> 4070

<211> 550

<212> DNA

<213> Homo sapiens

<400> 4070

tcccactgga attaaaaaca gatgagtcgt ttctaagaaa ataacttttt cttttacata 60
 ggtttgttct atactttgtc ataattcttc agtctttcct cagtctttac atggagtcca 120
 ttttttcagt ttatataaat ccaaagagaa attgatggct tcataatttt tttagactga 180
 caaaaaatga catgttttct ccagcctttt acgtcccaga agaatgtaaa ttaaaatgat 240
 ttgttccaga ggaagaaaac attttttaac ctaagagatg ctactgctga agcatattgt 300
 gctttctgta gtctctgata aatctagctt ttaaggacc ttaggtttgg ggtttctttg 360
 ttttgttttg tttttttcat ttattttcta gagacagggt ctggctctgt cgcccaggct 420
 ggagtgagg ggtgcaatca tagattactg cagcctcaaa ctctggact caagtgatca 480
 tcctgcctca gcctnccaag tagctaggac tacaggcatg caccaccatg tccagctaata 540
 tnttttattn 550

<210> 4071

<211> 605

<212> DNA

<213> Homo sapiens

<400> 4071

```
gtattttaatt tctgtgcctt aaatcaatga acaaattggt aaatttggtt aaatcaggaa 60
athtagtgaa ttttcatggt attttgattg catcatgcta agaataatttc atcatgtaat 120
tactaatagt ctatattcaa agcaacatta ttggctctta ttttactgag acccttccta 180
aaacacatag ttggagggtt tgtttttaat attcactagt aataaataac atactgtaag 240
tgaatagtaa agagggaat gatggcagca ttccacatat gtagcagttg ttcacacaca 300
tttctcccga tgtggtaata ctctgtccac caagtaatac cagcgaggca tggcaagcca 360
aggaagaata cagtagcatt gaacactttg gccatttatt ctgcattctt ctaggaatgc 420
ttatttcact tctaattctt atggatttca cactaatttc gatagctcag ttgccctaac 480
cttccttcag tctcgcaaag ctgtcttcat ttaccttcca taagaggggtg ggagtcgtgt 540
gtgtgtgtgt gtatggaatt gatttaatng gaaaatatcc ttttaattgn gttaagtgtt 600
gntaa 605
```

<210> 4072

<211> 739

<212> DNA

<213> Homo sapiens

<400> 4072

```
ggttatacaa ggtggagcca cagctggctg aggaccagcc cgtgcacggg gaccttgacc 60
tcgtcatgaa cctcatggat gcacacaagg tttccagaa ggaactggga aagcgaacag 120
gaaccgttca ggtcctgaag cggtcaggcc gagagctgat tgagaatagt cgagatgaca 180
ccacttgggt aaaaggacag ctccaggaac tgagcactcg ctgggacact gtctgtaaac 240
tctctgtttc caaaciaaagc cggcttgagc aggccttaaa acaagcggaa gtgtttcgag 300
```

acacagtcca catgctgttg gagtggcttt ctgaagcaga gcaaacgctt cgctttcggg 360
 gagcacttcc tgatgacaca gaggccctgc agtctctcat tgacacccat aaggaattca 420
 tgaagaaagt agaagaaaag cgagtggacg ttaactcagc agtagccatg ggagaagtca 480
 tcctggctgt ctgccacccc gattgcatca caaccatcaa aacttgatc accatcatcc 540
 gagctcgctt cgaggaggtc ctgacatggg ctaagcagca ccagcagcgt cttgaaacgg 600
 ccttgtcaga actggtggct aatgctgagc tcctggaaga acttttggca tggatccagt 660
 gggctganac cacccttatt cacngggatc aggagccaat cccgcanaac attgccgagt 720
 taaaaccctt atcgctgac 739

<210> 4073

<211> 805

<212> DNA

<213> Homo sapiens

<400> 4073

aattcttttc actcttgtga ctatctcagt cctctgctgt tttgtaactg gtttatctct 60
 atagtttatt tttttttaa ttataaacac tttcagctg ctagtatcag aaccacatga 120
 agttatagcc tctaaagcct gtggtathtt atataatatt tttataactt taagagactg 180
 tagtaattga cctaaaaact tatgttagct tcagtaaaag tacttttatt gtaaataaac 240
 aatcatgaac tcaacactct gcctgaatat atgccagttg tctttcataa tcaatgttta 300
 gataaatgat tgccactttt tatatggttg tttagtttca agcaatatga tgtacattac 360
 ttttgagaaa cagtattttg actaggacct ctcttatttg tcagcacaga actgattaat 420
 atgtaatgct acctgctaatt taaaatgtaa aatcaagtaa agaaaacatt ttaaaattac 480
 aattagcaga gcagttcatg ttttaaggga tcacttttat tagtattggc aatattattt 540
 gtgtaaataga agcatttgaa tgtcatatct ttttaaagta ttttattgta tactgtatca 600
 tagaagtgg aggtatataa atagaacatt ttgctaaagt gaaaaatttc caagttctct 660
 agcataactt ttacatttaa tttttcatat gaaatagcaa ttagttacct gctgggttac 720
 attgggatgt ttatgtatgg caatggtttt ggctttacag cntaatttat atngcttttt 780
 caaatgatgg anctgcataa atggg 805

<210> 4074

<211> 757

<212> DNA

<213> Homo sapiens

<400> 4074

```

cccagaagat ggaagccaat gccagctcag caaaacaaca gatgagtggc ccagcctgag 60
tagaggatct caggccagga agacttaggt ttttccatca tattagtcac tcatttatca 120
tccaaattct gaaagtgtg ttaataaggc agaagtggc cttagattcg gatttcctag 180
cacatgtctg cccctgtac tgggaggtgc tggctgtgtt ctaggcctgc ctcattggta 240
tcattctgga ttcttgggcc ttccctgtcc ctcattcctg gaaccgcttt tgttgcgttg 300
catgtttttc tcttttttgg ttcagttcct tgttttaagc agtggatctt tcagtagctt 360
tctgaggaag agtctgtggg agttaaattt ctcacatcct tgtatgtttg taatcgcttc 420
attctaccct gatttttttag agatagctga gctgggtacc cttattcttt agagatagtt 480
gagctgggta taaattcacg actggaaata gtcccccctca ccatttcaaa gacatttttc 540
tatttttata ttgcttccca tgttgaagac attcaacatt gtgattccaa aatcattgta 600
ggagacctgc ttttttatct ctggaaactt ttaggatctt ctcattatcc ctagatctgg 660
aattccngt gtgtgtgtgt gtncatca tgctgggtat ctgcanaggg aggctttgat 720
tttgaacaaa tttcttcatt cttggaagct ctacttg 757

```

<210> 4075

<211> 731

<212> DNA

<213> Homo sapiens

<400> 4075

```

agagtttcgg aggcggtgac cgtgacgtag aagggtggaga ccgcttcacc ctgatcaggg 60
agtatcggtc gcgggtgcgc aaggcgtcca ggagtgcctt ggggctgtgg agagcgaccc 120

```

gtggccttgt gtttcagagt ttaccaccta ggatgacttc agtgactaga tcagagatca 180
tagatgaaaa aggaccagtg atgtctaaga ctcatgatca tcaattggaa tcaagtctca 240
gtcctgtgga agtgtttgct aaaacaatct gccagttatc aagacaggag gcaatcctgg 300
cggcgagcaa gtatgaaaga aacgaaccgg cggaagtcgc tgcattcccat tcaccagggc 360
atcacagagc tcagccggtc tatcagtgtc gatttagcag aaagcaaacg gcttggctgt 420
ctcctgcttt ccagtttcca gttctctatt cagaaacttg aacctttcct aagggaact 480
aagggttca gtcttgaaag ttttagagcc aaagcatctt ctctttctga agaattgaaa 540
cattttgcag acggactgga aactgatgga actctacaaa aatgttttga agattcaaatt 600
ggaaaagcat cagatttttc tttggaagca tctgtggctg anatgaagga atacataaca 660
aagttttctt tanaacgtca gacttgggat cagctctgct tcactaccag caggaggctn 720
aagagatatt g 731

<210> 4076

<211> 647

<212> DNA

<213> Homo sapiens

<400> 4076

agttcactcg gcagcggcgc cgggcggagg gggagagcgc gggccgcgcg ggcgggaagc 60
gaagaggcgg gcgggccagc gaggagcgcg gagagaaaag gcgcgagcgg ccaggagggc 120
tcaggccgag acaccttgca gctgccgccg ccgccaccga gccgccgctg tgctcactga 180
tccgcctcca gggccaccgc catgtcgagc cgcggtggga agaagaagtc caccaagacg 240
tccaggtctg ccaaagcagg agtcattctt cccgtggggc ggatgctgcg gtacatcaag 300
aaaggccacc ccaagtacag gattggagtg ggggcacccg tgtacatggc cgccgtcctg 360
gaataacctga cagcggagat tctggagctg gctggcaatg cagcgagaga caacaagaag 420
ggacgggtca caccggca catcctgctg gctgtggcca atgatgaaga gctgaatcag 480
ctgctaaaag gagtcacat agccagtggg ggtgtgttac ccaacatcca ccccgagttg 540
ctagcgaaga agcggggatc caaangaaag ttggaagcca tcattcacacc acccccacca 600
aaaagccaag tcttcatcca naagaacctg tatctaaaa agcanga 647

<210> 4077

<211> 711

<212> DNA

<213> Homo sapiens

<400> 4077

```

agagcgtgga gcgctgcgcg gcgcggcggc cgggccctcg agacggggac ggacacacca 60
gcccctcaga taccacttgg ccactcccg ctagggccact cccactgcgt ggctgaagcc 120
tcgaggtcac caggcggagg cgcgagatg cccctgcac agctggggga caagccgctc 180
accttcccca gcccgaactc agccatggaa aacgggcttg accacacccc acccagcagg 240
agggcatccc cgggcacacc cctgagcccc ggctccctcc gctccgctgc ccatagcccc 300
ctggacacca gcaagcagcc cctctgccag ctctgggccg agaagcatgg cgcccggggg 360
acccatgagg tgcggtacat ctcgccggg cagagcgtgg cgtgcggctg gtgggccttc 420
gcaccgccgt gcctgcaggt cctcaacacg cccaaggga tcctgttctt cctgtgtgcg 480
gccgcattcc tgcaggggat gactgtgaat ggcttcatca acacagtcac cacctccctg 540
gagcgccgct atgacctgca cagctaccag agcgggctca tcgcagctnc tacgacattg 600
ccgtgtctct gctacctcg tcagctactt cgggggctca ggcacaaccg nctggctggc 660
tggggcgtct gttatggcac ggttcctgtg ttccctgcc cttacgntgn c 711

```

<210> 4078

<211> 596

<212> DNA

<213> Homo sapiens

<400> 4078

```

tttgctaaag ccaccataaa ggaaatagtt gtgtggccca tgttgaggcc agacatcttt 60
actggtttaa ggggaccccc taaaggaatt ttgctctttg gtcctcctgg gactggtaaa 120
actctaattg gcaagtgcac tgctagtcag tctggggcaa cattcttttag catctctgct 180

```

tcaccccttaa cttctaaatg ggtaggtgag ggggagaaaa tgggccgtgc attgtttgct 240
 gttgcaaggt gtcagcaacc agctgtgata tttattgacg aaattgattc cttgttatct 300
 caacggggag atggtgagca tgaatcttct agaaggataa aaacagaatt tttagttcaa 360
 ttagatggag caacaacatc ttctgaagat cgtatcctag tgggtgggagc aacaaatcgg 420
 ccacaagaaa ttgatgaggc tgcccggaga agattgggtga aaaggcttta tattcccctc 480
 ccagaagctt cagccaggaa acagatagta attaatctaa tgtccaaaga gcantgttgc 540
 ctcantgaag aagaaattga acagattgnc agcagtctga tgccttttca ggagca 596

<210> 4079

<211> 694

<212> DNA

<213> Homo sapiens

<400> 4079

aagtttatag aaaatgcttg ttttatagtt ggttggttatt gagatgagag tccctcaagg 60
 aactccctat gctttaggga gctttttggt ttaaaccctac tggtttagact tgtgggtttt 120
 aatgttttca gctgtggttg taagaaacac attttaaatt gcacctagta tagacataca 180
 tgtaaaacaa acaaaatttt tacgaagtag tacttgtatt aagagtgatg tactctgcta 240
 tcttctatct cattttttta aagttgatat tgctgcctta aattgatttt ttcaaccact 300
 aatgagtcag gaccactat ttaaaaaata ctggtgtgtt ctcttgctgt tacgaattaa 360
 cccaaaactt agtggtttaa agcaataaac ttgtgtttat ctcattgtagg ttctgtgggt 420
 caggaatctg ggagtagctt acitagggtg ttctgggtca gggtttttca tgtggctccg 480
 cgctctgctc cagccaaact tctgcagacc atgtgcagcc gaggcgagga aacttctctc 540
 cacctattgg ggctggaggc ctgagtcaca agccccttgt ttacataaag tgtttaaggt 600
 agcacaagtc cttgagatgc tcggggtaga gatgganaac cactgcttcg tatccttctg 660
 ccgcttctgc ttganatctc tngccttacc cttg 694

<210> 4080

<211> 758

<212> DNA

<213> Homo sapiens

<400> 4080

```

gctggaaccc ggcgccgaga gtagagaaaa ggggcctctg gtgaccgccc ctacctggca   60
tccctctaac ccaggaggag cgtggggaaa ggggctgtgg gcctctcggg gagcgagctg  120
cgggtagcgg cgcaactgggt acaggcgcg cgttggtgtg cgctctgcc gctgtgtttg  180
ggaggactcg aactggcgcc aggaaatatt aggaagctgt gattttcaaa gctaattatg  240
aaaacattta tcattggaat cagtgggtgtg acaaacagtg gcaaaacaac actggctaag  300
aatttgcaga aacacctccc aaattgcagt gtcatatctc aggatgattt cttcaagcca  360
gagtctgaga tagagacaga taaaaatgga tttttgcagt acgatgtgct tgaagcactt  420
aacatggaaa aaatgatgtc agccatttcc tgctggatgg aaagcgcaag acactctgtg  480
gtatcaacag accaggaaag tgctgaggaa attcccattt taatcatcga aggttttctt  540
ctttttaatt ataagtaagc atctccaccc taatattgtc tctgagtga tggggggata  600
aaaacccttg tgaactaagt atgctgtatt ttagcccctt gacactatat ggaatagaac  660
tatttctga ctattccata tgaagaatgt aaaaggagga agangtaagt ttttgaacca  720
tctttgggag ttgtaattca aaacaaaaaa tgtanaan                               758

```

<210> 4081

<211> 734

<212> DNA

<213> Homo sapiens

<400> 4081

```

ctcggatgtc cggaggctcc tgggctgagc cggcgacaga gcccgggaag gcagcgagac   60
gtgggcgccg gccagcccc ctcccgcgtc cttcagcccc aagccccgag cccctctgac  120
ccttccgcag cctccctcc agccgcgccc ggcctccggc agctccctgt acgcctccct  180
ccccctgccc gccctccct cccacagccg ccatgacgc cctctcggca cctcttccca  240
ctctgccag cgctcttttc ctgcaccttc gccccgcgta cctactctg ccccgccctg  300

```

ccattcctct cccctccctt ctctctgcga cccctccctg ttaggccccca gcctctttctc 360
 ccctcacagg tcttctctgt cctggcctca ccgccttata ctattcctct cccttgccct 420
 gtgtcttgtc tcagagcccc ctcggggtgg gagtaggttg tggagcagca caactgggct 480
 ccccccaaag cagaacttct caatccatga ggacaatggg gaggccttta ggccggcccc 540
 catgtgacaa tggagggctg cggcttcctt gcggagagca caagtgagct cactgccctg 600
 gactccaggg aatcagagtt ctggccgcgg ggtgaccag ctctctgct accatgaata 660
 ggccccctct gaaancggtc caggatcctg cacatggcgc ttgaccgggg gcctnagaac 720
 cccttnttgc aaaa 734

<210> 4082

<211> 652

<212> DNA

<213> Homo sapiens

<400> 4082

gaggctgaga ccggtgcgcc gcgcgctagt ggccgctctt ccgcgggcta gcgggcggtg 60
 ggggcgccag cagcgcggaa ggccggcacg cgggccatgg ctccctgggc ggaggccgag 120
 cactcggcgc tgaaccgct gcgcgcggtg tggctcacgc tgaccgccgc cttcctgctg 180
 accctactgc tgcagctcct gccgcccggc ctgctcccgg gctgcgcgat cttccaggac 240
 ctgatccgct atgggaaaac caagtgtggg gagccgtcgc gccccgccgc ctgccgagcc 300
 tttgatgtcc ccaagagata tttttccac ttttatatca tctcagtgt gtggaatggc 360
 ttctgtctt ggtgccttac tcaatctctg ttcttgggag caccttttcc aagctggctt 420
 catggtttgc tcagaattct cggggcgga cagttccagg gaggggagct ggcactgtct 480
 gcattcttag tgctagtatt tctgtggctg cacagcttac gaagactctt cgagtgcctc 540
 tacgtcagt tcttctccaa tgatcatgatt cacgtcgtgc agtactgtt tggacttgct 600
 tattatgtcc ttgntggcct aactgtgctg anccaantgc caatggatgg ca 652

<210> 4083

<211> 700

<212> DNA

<213> Homo sapiens

<400> 4083

```

gaggccgcag cagtcgccgc gcgaacatgg cggccgaaat ccactccagg ccgcagagca   60
gccgcccggg gctgctgagc aagatcgagg ggcaccagga cgccgtcacg gccgcgctgc  120
tcatcccca gaggacggc gtgatcacgg ccagccagga taatggagct gtaatggaat  180
ttcacgtttc tgaagatttt aataaaatga actttatcaa gacctacca gctcatcaga  240
accgggtgtc tgcgattatc ttcagcttgg ccacagagtg ggtgatcagt accggccacg  300
acaagtgtgt gagctggatg tgcacgcgga gcgggaacat gctcgggagg cacttcttca  360
cgtcctgggc ttcgtgtctg caatatgact ttgacactca gtatgctttc gttggtgatt  420
attctgggca gatcacctg ctgaagcttg aacagaacac gtgttcagtc atcacaacc  480
tcaaaggaca tgaaggtagt gtcgcctgcc tctggtggga ccctattcag cgttactct  540
tctcaggagc atntgacaac agcatcatca tgtgggacat cggaggaagg aaaggccgga  600
cgctgttact tcagggccat catgacaagg tgcagtcctt tgtgctacct tcagctnacc  660
aggcagcttg tcttcctgtt cctnggacng cggaattgca                               700

```

<210> 4084

<211> 639

<212> DNA

<213> Homo sapiens

<400> 4084

```

gttcaaaact tgttgaagtc cgaagaggat tcctcatata aacctgtgaa gaaagcttgt   60
actcaacttg ttgataacct agttgagcac attcttaa atgaggaatc tctagctgac  120
tctgacaata aaggtgtgaa ttctggaaga ttggtggctt gcataaccac tttgttctta  180
ttcagcaaaa taagaccca gctcatgggt aaacatgcaa tgactatgca accatacctt  240
accactaaat gtagtacgca aaatgatttc atggttatct gcaatgttgc aaaaatccta  300
gagctagttg taccactgat ggagcatcca agtgaaactt ttcttgccac tattgaggaa  360

```

gatctaataga agctcatcat caaatatggc atgactgtag tgcaacattg tgtgagctgt 420
 cttggagctg ttgtaaataa agtgacacaa aattttaaat ttgtgtgggc ttgtttcaat 480
 agatactatg gtgccatttc aaaattaaaa agtcaacacc aagaggaccc aaataacact 540
 tcacttctaa caaacaancc ancacttctt agatcccttt tcaccgttgg agcactatgt 600
 ccngcatttt gantttggat ctggaagatt ttaaaggna 639

<210> 4085

<211> 583

<212> DNA

<213> Homo sapiens

<400> 4085

cagagtattt gaaatatccc attagcttac tgtagtagt tgtcttagga acttcttact 60
 aacgggtgaat agtaaccgct atttgttgag catttactaa gcactgtgtg tgtgtgtgtg 120
 tgtgtgtgtg tgtgagagag agagagagag agagagagag agagagagag agaaagagag 180
 agagagtctg tgggttattc ccatttgaca gattggaata ttaaggcaaa aagatactaa 240
 gtattttgtc caatacctca tagccattga cagagatggg aataaaaatt ggcctatgta 300
 acatcaccaa agcccacgca gtgcctgtgg gaaaaatgaa tttcagattt agcttaatgt 360
 cacacacaca cagcccacaa ggaaatgcct gacaattacg ctccatgttc tgaaactgac 420
 gtgtcatcat caccacagaa ttgccacttt atgcctcagt ttaccaact tcanagtaga 480
 gaaacatttc aacatttaat tttacttgcc angataatgt atgaattagg taatgcntat 540
 aaagaagtgg tttgatgagg ggaaaagctc tancnaaaa gcn 583

<210> 4086

<211> 561

<212> DNA

<213> Homo sapiens

<400> 4086

gaaaactgaa agccggaccc caggccgccc cgctgccgcc cggcctcccc gccagcgcgc 60
 caccatgggc agtcccgggt tccccttgta aagatggcgg tgagggatcg ctgcaacctt 120
 tagactaatg actgtccgaa acatgcctc catctgtaat atgggcacca atgcctctgc 180
 tctggaaaaa gacattggtc cagagcagtt tccaatcaat gaacactatt tcggattggt 240
 caattttgga aacacatgct actgtaactc cgtgcttcag gcattgtact tctgccgtcc 300
 attccgggag aatgtgttgg catacaaggc ccagcaaaag aagaaggaaa acttgctgac 360
 gtgcctggcg gaccttttcc acagcattgc cacacagaag aagaaggttg gcgtcatccc 420
 accaaagaag ttcatttcaa ggntgagaaa agagaatgat ctcnttgata actacatgca 480
 gcangatgct catgaatfff taaattantt gctaaacact attgcggaca tccntcagga 540
 ggagaagaaa caggnaaaac a 561

<210> 4087

<211> 674

<212> DNA

<213> Homo sapiens

<400> 4087

gcggaagctc ggcagtgcgc gtgcgcccgc acccgcactc caaattagaa aggggacgtc 60
 tagtgggttg cccgggaggg gtggcgggag cggtcctgga aataatctgt cctctgtcgc 120
 cgggaactgg cgaggtagtt ccttcgcggt ggagagacct ggaatggcca aatatcaagg 180
 tgaagttcat agtttgaaac tggatgatga ttcagttata gaaggagtaa gcgaccaagt 240
 acttgtggca gttgttgtca gtttcgcttt gattgctacc ctggtatatg cacttttcag 300
 aaatgtacat caaaacattc acccagaaaa ccaggagcta gtaagggtac ttcgagaaca 360
 gcttcanaca gaacaggatg cacctgctgc cactcgacag cagttctaca ctgacatgta 420
 ctgtcccatc tgcctgcacc aagcctcctt cccggtggag accaactgtg gacatctttt 480
 ttgtggtgcc tgcattattg cttactggcg atatggttca tggcttgggg caatcagttg 540
 tccaatctgt agacaaacgg taaccttact cctaacagta tttggtgaag atgatcangt 600
 ctcaaggatt tctgagattg catcagggat attaattgatt annaaccggg agattccan 660
 gggcaaacc agnt 674

<210> 4088

<211> 666

<212> DNA

<213> Homo sapiens

<400> 4088

```
attgtcactt gggttctcaa gtttccttca tactcttata agttcttttg gagtcgggtcc 60
agcgcgtcat gtgccatgc ctgttgctgt aaattatcac tgcaccgtga acatgtgtac 120
attactaggg caagagctag cctgggaaac ctaagtctgc acattttccg ccgtgttgca 180
tgttttctgt tctctgcctc tgttgtgtgtg caagacagag agataggcta tttgtcaagt 240
cagctagttg cctaggtatc tttgtctcac atctggctgt ttcctcctag agaaccatcc 300
agttggcttt ccaggcctgg aggtgagcta atggatgagt gaatattagc agtgggtgtt 360
cctcatctct ttgaggattt gcctcagagt tcactaccaa gggattttctg gaactaggag 420
ccattcttta catcagttct tgaggcttct ttgatatcag gggcaaaatg atcccttctc 480
ttttctttct taaatcctgt gctttgtctc ctgggtgatt tctcttcaag tcanttgtgg 540
gaggtgccta agaacaacgc taacacgggg ctcaaataag tttggcanat atagttgatt 600
ttgggcaaag gttgttgaac agtccannaa aatttcttga gaagagaaaa ngaaggtnga 660
aagggg 666
```

<210> 4089

<211> 559

<212> DNA

<213> Homo sapiens

<400> 4089

```
agtttttaag actgtgtgtg tatgagacag gtcgcgtcct agagcaaacg gttttttttg 60
taaacagacg gcatcctaac aggggcggtg ctaccagtc tgcggggagt cgctcgggat 120
cgaagcacct cagagctcct tcgagcgtat cccttcggga aagccccacg ccttccccga 180
```

ggcgccctcct ccggcctgca gcacgccctc gtcctgcact tcctcctcgg aatctgcaag 240
 acagagtcta gctctttcac ccaggctgga gtgaagtggg gcaatctcag ctcantgcaa 300
 cctccgcccc ctgggttcaa gtgattctcc tgcctcagcc tccccagtag ctgggattac 360
 agtgatatcc tgagagaaga tgggaaaggg ctgcaagggt gtggnntgtg gattgttata 420
 tgtggggaaa actgcaattt tggagcagct cctttatggg naatcatact attggaatgg 480
 naagattgcg aaacaatgga agatgtatac atgggttcag ttingaaacag accggaggag 540
 taaaaggaan anttacatc 559

<210> 4090

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4090

aataatattc ttcaagagat ttacagagtt ccttgagtga attgttggtt tgttcttaat 60
 actgaatttc ctattcaaatt ttatttagaa gttcatttct tacagtgatc tcatctccta 120
 ttaagatatt cttcaagatc tggaggccat cctttaagct tcttgcaaca gtctgggagc 180
 aaagagttta ctgccactg ggtagtgggc catggacacc ccagtctcca ccagaagttc 240
 gggattgcaa aatgggactc tggcagcaaa tttcaaactg tatgccagac ctggcccttt 300
 gcaggtgtct ggaaagatgg ctgaatagga acagctctgc tctgcagctc ccagcgagat 360
 caacgcagaa ggagataatt tctgcatttc caactaaagt acccagctca tctcattggg 420
 actggttaga cagtgggtgc agcccacaga aggcaagcag aagcagggtg gggtgtcgcc 480
 tcacccggga agcgcaaggg gtcagggaac tccctccctt agccaaggga agctgtgagg 540
 gactgtgccc tgaggaacgg ggcattccgg cacagatact atgctttccc caagggtttt 600
 gcaaccacaa gaccaagaga ttcccttggg gtgcctgcac caccaagggc cctggggttt 660
 caagcagaaa actggggcaa ccattttggg gcagacactg ggcctagcaa caaggagttt 720
 tttttcaana cccctangta gccctanaa aggccaagcn aagacagaaa ctggttcaat 780
 cccctgnaaa a 791

<210> 4091

<211> 647

<212> DNA

<213> Homo sapiens

<400> 4091

```

aagtgcgcac gtgcgcgagg agtcgctcgg gcacttattg agcgccgact gtctacgggc 60
ggccgggggt gatgggcaga ggcttcagtg tccccttcgc ctccgcagga gaggagaggc 120
agcagcatgg cgagtgtcct gtcccagcgc cttggaaagc ggtccctcct gggagcccgg 180
gtgttgggac ccagtgcctc ggagggggccc tcggctgccc caccctcgga gccactgcta 240
gaagggggccg ctcccagcc ttaccacc tctgatgaca cccctgcca ggagcagccc 300
aaggaagtcc ttaaggctcc cagcacctcg ggccttcagc aggtggcctt tcagcctggg 360
cagaagggtt atgtgtggtg cgggggtcaa gactgcacag gactggtgga gcagcacagc 420
tggtatggagg gtcaggtgac cgtctggctg ctggagcata agctgcangt ctgctgcaag 480
gtggaggagg tgtggctggc agagctgcan ggcccctgtc cccaagcanc anccctggag 540
cccgagccc aagccctggc ctacaggccc gtctccaaga acatcgatgt cccaagagg 600
gaaatccggn cgcantggga aatggntgaa natgatggng ggcatgg 647

```

<210> 4092

<211> 658

<212> DNA

<213> Homo sapiens

<400> 4092

```

ttttctgggc tcggacctag gtgcggcgca catggccaaa cgtaccaaga aagtcgggat 60
cgtcggtaaa tacgggaccc gctatggggc ctccctccgg aaaatggtga agaaaattga 120
aatcagccag cacgccaagt acacttgctc tttctgtggc aaagtaagta aggcaaagtc 180
tctggtgaga ggagaggag ggcaggtttc ttaccaagt gaggcctgac ttcaaggatat 240
tttataagcc gtgtgctggt gggcagttgg aattactcat accgttgatt atgagtttta 300

```

agataaaagt gttgatggta acttcagatt ttgtgagacg tttttcattt aaagaaaacc 360
gcttaaacgt taatgggtaa aataatcatt tgacagagtg cccccagcct aagccaaacc 420
tgctttgtgg gaaatgattc catcagtttt gtctactgat gtttctgcac caactcccaa 480
aatgtctgtg catctaatac cattctactt gttctgcgag ggatttttgt ttgataaang 540
tttgaacgtt tatgtgcaaa atactgcatt acagcaatcc ttggtttgtt tttgagggag 600
aaanggaggc tttcanaatc cctgacaata aaggngaate caaaatttan acntctgg 658

<210> 4093

<211> 680

<212> DNA

<213> Homo sapiens

<400> 4093

ttttgttcgc gcggaagcgc cgcggtaggg tgggaaccca agcgggagag ccgcgggatt 60
tgcggccgcc gccatgccgt cgtccccgct gcgggtggcg gtggtgtgct cgagcaacca 120
gaaccggagc atggaggcgc acaacatcct cagcaaacgg ggattcagcg tccgatcctt 180
tggaacaggg actcacgtga agcttccagg accagctccc gacaagccca atgtttatga 240
tttcaaaacc acatatgacc agatgtacaa tgatcttctt aggaaagaca aagaactcta 300
tacacagaat gggattttac atatgctgga cagaaataag agaatcaagc cccggccaga 360
aagattccag aactgcaaag acctgtttga tctgacctc acttgcgaag agagagtgtg 420
tgaccagggtg gtggaagatc tgaattccag agaacaggag acctgccanc ccgtgcacgt 480
ggtcaatgtg gacatccagg acaaccacga ggaggccacc ctgggggctt ttctcatctg 540
tgagctctgc cagtgtatcc agcacacgga agacatggag aacgagatcg acganctgct 600
gcaggagtgc naggagaata tggccgcacc tttctgcana ccgtctgctt ctactgagcc 660
aagngcccgc atggganccg 680

<210> 4094

<211> 525

<212> DNA

<213> Homo sapiens

<400> 4094

```
cagctggagc tttgccgcat ctgcgttgct gtgcccgcgc tcttcgggcg aggaagtccc 60
ttctgggtga gggagaaaag ggttacatga gttagattac catggcagct cgagccaggc 120
tctccacttc cgtgagcctt cctctaagtg agatcggggg ggagataatg aaggccacaa 180
ctcccaggag gctccacgcc gggcggtcag ggacgctcgc gaggacgcat gggccccag 240
gaatgggaac tggttagatc ccaggaactc cgtgccggag acgggaagag aggatgccta 300
gggccctaaa tggaaaggcc agagctggag acctancacc canaatatga gaccgcaatt 360
cgagaatcaa agggccggga gcgatggnga gcgcctgtaa tcccagcact ttgggangtt 420
gaagcgggag gatcctttga ggccannagt tccaagctgc agtgagcccc tgatcgacc 480
actgcactcc agcctgggcg acagancgca cangtgccag caang 525
```

<210> 4095

<211> 703

<212> DNA

<213> Homo sapiens

<400> 4095

```
ggccctgctg cacatcctgt gcaaccttgg gcctctctca gccctgaggg ctggcagaga 60
ggaggtcctt tttggcccca ggtgactctt aactcccagg acagagcaaa ggtcctgagc 120
ccttagttgc ctggaggctt gagtccctggg agcccgtgt ctgctgcctc tgcaagtggg 180
agaggtcact gcccgaggga ggacagggca tgctgccagg ctccagggga ggagccccag 240
ggagggagcc tctggagggtg gtgcccaggc cgttctcctg cctcctgccc tgtgcccgcc 300
tcaattcatg ttcttctca gatgagaggg aggggtgggca ccccaggaa tctcttcct 360
gcaccttggc cccctgcccc tggaggagcc cagcttcttc tccagagcct agcagcccag 420
aatctgagag cagaggccct ggtcccaggc ccagccctgc atcgccccan gagggcagcc 480
cgcaagcttc aacaccacag ctcangcatt ttgcccaagt ggacactana tgcttcacag 540
tcttactct tgggagacgg atggggaaca agccaagtgc cttgaaagaa aaaggaggca 600
```


aggggaaggcc caaaaccang cnanggaagt aaagagtga aggaacaacc aagcctgcag 660
agaatggaga cgtccaacct ganantcacc ttgacttctg caa 703

<210> 4096

<211> 578

<212> DNA

<213> Homo sapiens

<400> 4096

caaaatgtgc tttgaggtag gaaggacact cctgtagagc ggctttggca tgaggtcgac 60
ccgccctggg gtggctcctt ttccctgtgt tggcttgggg ccactgcccc ttcattgttg 120
gctcacatgg tccagaagca tcagggtctt ttaaccag aatagtcaag ccttggtttc 180
cttacccttg cagttttcca gagcagctaa aaaacatcca agctggcaaa ccattcttcc 240
tactccaaac attaggagct tttaccagta agcaaggggt gggaagcttt tcctttcttg 300
aagatgctgc cagcgtagtt tccctttag ctgccatcct ggggtgcatga cttgcaaaac 360
tgatatgtga gtgacaataa gccagatggc ctttgcaaaa gctctgctta ttttgatttt 420
tgtggnctct taaaaaggc gaagttagca ttgatctttg ttggggctgt ttagctcaa 480
cggnaacatc actgggttgt ttcncantt taattttccc aaaaccttta cccattatct 540
gcagattttc acatctaagc aaaatanggn tcatatga 578

<210> 4097

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4097

gtcgtctttc tgtctcggt gaggcagcca tctttctctt gccgcgtgct ggtgttgag 60
gaccctccct gcttcagatt taccaacagc atgaatcaag aaaagtttagc caaacttcag 120
gctcaggtcc ggataggggg caagggtaca gctcgcagaa agaagaaggt ggtacataga 180

acagccacag ctgatgacaa aaagcttcag agttctctaa aaaaactggc tgtgaataat 240
 atagctggta ttgaagaggt gaacatgatt aaagatgatg ggacagttat tcatttcaac 300
 aatcccaaag tccaagcttc cctttctgct aatacctttg caattactgg tcatgcagaa 360
 gccaaaccaa tcacagaaat gcttcctgga atattaagtc agcttgggtgc tgacagttaa 420
 acaagcctta ggaagtttagc tgaacagttc ccacggcaag tcttggacag taaagcacca 480
 aaaccagagg acattgatga ggaagatgat gatgttccag atcttgtaga aaattttgat 540
 gaggcacata agaatgaagc taactaaaag tttggttttt gggaagctgg catggactag 600
 atttaacaaa tcagctatgt ggttccaaag ttttacagac atggagaaca tcacctggtt 660
 actaagtcca agtaataata ataattttgt atattaataa atgctgtttg gttcnagcaa 720
 ttttttcggt cattttgatt tttgcatttt tggcacttcc ctcccaaagg aanatttttt 780
 ttgggccaaa aattangaaa ntattgggng caattttgan ggg 823

<210> 4098

<211> 758

<212> DNA

<213> Homo sapiens

<400> 4098

agccgagacg gtgcagggcc ggagaagcac cttcactccc agcctgcgcc ccgatgctgc 60
 gcgttctgtg cctcctgcgc ccctggaggc cccttcgggc ccgcggctgc gcttccgacg 120
 gggcggccgg gggctcagag atccaagtgc gcgccctggc ggggtccggac caagggatca 180
 ctgagattct gatgaacaga cttctgccc gcaatgcctt ggggaatgtc ttcgtcagt 240
 agctgctgga aactctggcc cagctgcggg aggaccggca agtgcgtgtc ctgctcttca 300
 gaagtggagt gaagggcgcg ttctgtgcag gtgcagacct gaaggagcgg gaacagatga 360
 gtgaagcaga ggtgggggtg tttgtccagc gactccgggg cctgatgaat gacatcgctt 420
 cctcggcagt catgggactg attgagacca cgcgagggt cctcccggng gcaggaggga 480
 ctgagaggct gcccgttgt ctgggggtgg ncctggcgaa ggagctcatc ttcacgggcc 540
 gacgactgag tggaactgag gccacgtac tgggggctgg tgaaatcacg ctgtggccca 600
 naacgaagga gggggaacgc cgcctaccaa cgggcacnaa cactgggccc aaggagnttc 660

ctgccccaaag gcccccaatt gcccgctcng gctggggcaa aagttagcca atttaaccg 720
nagggaaccg gaggttgga aattgcaatc tngggant 758

<210> 4099

<211> 881

<212> DNA

<213> Homo sapiens

<400> 4099

tctctcagat gttgttatta actcgctctg tgtgttgca aaactttttg gtgcagattc 60
gtttccaaaa ctattgctac tttgtgtgct ttaaacaaaa taccttgggt tgatgaaaca 120
tcaaccaggt gctaggaata ctgtgtatct atcattagct atatgggact atattgtaga 180
ttgtggtttc tcagtagaga agtgactgta gtgtgattct agataaatca tcattagcaa 240
ttcattcaga tgggtcaataa cttgaaatct atagctgtga taggagtcca gaaattggca 300
catcccttta aaaataacaa cagaaaatac aactcctggg aaaaaagggt ctgattctat 360
aagattatct atatatgtaa gtgttttaaa agattatctt ccagaaaggt tgtgcagggt 420
ttaagttgct actattcaac tacactatat ataaataaaa tatatacaat atatacattg 480
ttttcactgt atcacattaa agtacttggg cttcagaagt aagagccaac caactgaaaa 540
cctgagatgg agatatgttc aaagaatgag atacaatttt ttagttttca gtttaagtaa 600
ctctcagcat tacaaaagga gtaagtatct cacaatagg aaataaaaac taaaaccgt 660
agatttaaaa aagaacctgc acggggcttt anggtaaatg ctcaatctta aacccccact 720
aanaggggaa agtcctcccc aagtttcaag caaaggacca atttacttaa aggtgaagtt 780
ttgggaaagt tataaagggg gtanggtttt tangcccatn aggattttta nttttaaatt 840
tttgccttcc ttaaggttc ggttcctaata ttaaangcaa t 881

<210> 4100

<211> 624

<212> DNA

<213> Homo sapiens

<400> 4100

```

aaaacggcgg gaccagcagc gacggtagca gcagcatggc cgcgatctat gggggtgtag 60
aggggggagg cacacgatcc gaggtccttt tagtctcaga ggatgggaag atcctggcag 120
aagcagatgg actgagcaca aaccactggc tgatcgggac agacaagtgt gtggagagga 180
tcaatgagat ggtgaacagg gccaaacgga aagcaggggt ggatcctctg gtaccgctgc 240
gaagcttggg cctatctctg agcgggtggg accaggagga cgcggggagg atcctgatcg 300
aggagctgag ggaccgattt ccctacctga gtgaaagcta cttaatcacc accgatgccg 360
ccggctccat cgccacagct acaccggatg gtgngttgt gctcatactt ggaacaggct 420
ccaactgcag gctcatcaac cctgatggct ccganagtgg ctgcggcggc tggggccata 480
tnatgggtga tgagggttca gcctactgga tcgcacacca agcagtana atagtgtttg 540
actccattga caacctaaaa gcggctcctc atgatatcgg ctacgtcata cangccatgn 600
tccactattt cntgtgcc natc 624

```

<210> 4101

<211> 732

<212> DNA

<213> Homo sapiens

<400> 4101

```

atTTTTtGca gatgcaagaa gagagtatcg ggtcactatg tgacatctgc agctgccaaag 60
agtgtccatg ctgcccctaa tctgtctcca aaagaactga caaataaaga ggcagaaagg 120
gatatgctgc cttctccgga gcagactctt tctcccttaa gtaaaatgcc tcactctgtt 180
ccacaacccc ttgttgaaaa aactgatgat gatgtcatcg gtcaggctcc tgctgaagcc 240
tccccctcctc ccatagctcc aaaacctgtg acaattcctg ctagtcaggt atccacacaa 300
aatctgaaga ctttgaaaac ttttgggtgcc ccacgaccat actcaagttc tggtccttca 360
ccgtttgctc ttgctgtagt gaaaaggta cagtctttca gtaaagagcg caccgagtca 420
cctagtgccg gtgcattggg ccaacctcca gccaanacag aggaaggga gactcattct 480
gtaaataaat ttgtggacat cccacagctt ggtgtgtctg ataaggaaaa taactctgca 540

```

cataatgaac agaattccca aataccaact ccaactgatg gcccatcatt cactgttatg 600
 agacaaagtt ctttancatt ccaaaaagct ctgacccagn ncaagtnca cagagttttg 660
 ctgactgcaa tccgttcggg agaaggtgct gccaaatttg gaaaaggggt taccattcca 720
 tcaanattca aa 732

<210> 4102

<211> 801

<212> DNA

<213> Homo sapiens

<400> 4102

tattgacaaa caatacagca acaataatt tactatcact caggattata aggctggtgt 60
 taagcagaac agccattaaa tcagcatcaa aagaacaaat agtaaaatcc aaagtattaa 120
 ttacagataa cttttcaaaa attcatcatt cacccttgat ttaattatit ctctggcaat 180
 tatttaatat acttctcgga gtctgttaag tacttaaacc aagaactacc attattccta 240
 ctgggaaaac ataacatttt ctcaagtga aagtaaacag tggtggcact atttttatat 300
 atggttaaag agacctgtca ttgcaataaa agccagcatt cacaaaatga ggaagataag 360
 gaaagtagca taaatatttt ctattaacat ggctttacaa ctgctaaaac ttatagtata 420
 aaaatgtact aacaagagac taattcaaga agttgcagga tacacaattt ttaaaaatct 480
 catttctaca tcttagcagt gacaaactgc aatttaaaaa gtgtgtttgg ttattaatat 540
 atatgagact tttaaagaaa gttatataac tacatagaga taaattaaga aagatgccta 600
 aatagaagca agtttaaaga gctatatit taaacatgga acaanctccc atgggagcca 660
 tgccagtggg agtgggaaaa gtagtacatg ggggagatgg ggggagnttt ttggaaaaa 720
 ccaggatttc aggttcccaa ttctactact ttccaagtig gtanaccctt tggggaaagg 780
 tcactcccna agnnaatcta a 801

<210> 4103

<211> 598

<212> DNA

<213> Homo sapiens

<400> 4103

```

ttttctttca actcgatgag aggaggactc ctcttgggcc tgggtgcttcg aggtccagac   60
gagcagacac tggcgccctgt gaccctgcag cggacgcctt tcaaagtcg cgtggccgca  120
tttgaagcc tgggcggcgt ggagacggcg ccttcagctt gagataaatg tggccccgtc  180
ccagagcacc acccgagaca tcaggagccc atcgtgggct agggagatc ctccgggacc  240
taacggccca ggtcttccac ccttggnac ctccccaggt gatgcctgaa gctcaaggga  300
ctgtgtccac cctcaggccc tgcccgctggc tctggatcgg cggccccat cagaggcctg  360
ngctgagtcc tcaggtaag aagtggcgct gacctggagc cctgcctgg ggctggcctt  420
cctcacagtg agctgggcct cctgccatcc tggctctgga gggcgtctga gtggaaagag  480
gctcagcctc acctccacac cctgaanact cactctctgg ccctgggctc tgttgtgtgc  540
accgcctgtn tgcaatggcc caagccttgc ctgaagcan tcccctgggg aacaagnn   598

```

<210> 4104

<211> 693

<212> DNA

<213> Homo sapiens

<400> 4104

```

caaacatgag gcaaaagaaa aaatacatgt tttaagaaa acattgagca gagaactgca   60
gccaggatgc gctcagcaga cattcactct ggctgctggg acatcagaaa acaaagtctt  120
catctctctc tccagtttca cccacccac ctttgcttt catttcaggt gtgttggtct  180
atatgacagg gaggagagta aaggagagca ggagcaattg gctgcctgca aagccagctg  240
gaggtgaagt gcaggaaagg aaaggtcacc ccattctact ccatggcctc tctgctccca  300
gctgtggtag gtcacatan ccagtgtgat cggtttttaa gaggcagtgc ttttcagctt  360
ttctccctga tatatccatt ttgcttccca gcacttttta ggagtagtga gagcacttcc  420
tgcccttggt ggaagcccca ggggtggacac tcaagcacga aggtctctcc ctttaactgct  480
gcccttccaa gacttgctcc cgagatggag tgggcgtggt ctccaaggc tggnccttcc  540

```

ttctcctcac cgccaccttc cctgccccaa gcccgaagca gccatgggta catgggtccc 600
 canctcanct anggggtccc gncaagtctg cccagctgca agtactcang ccccatgggg 660
 gggattcttg ggtccggttt ttcttggtgg gaa 693

<210> 4105

<211> 604

<212> DNA

<213> Homo sapiens

<400> 4105

attaatattg ggaaaattat gataaaatgc tttaaaaatt aatatgccag attaaaataa 60
 ctgaatagtt tactatttca ttcaagcatg tttaaaacaa ataatttcct ttcaccagtt 120
 tttcttagta aactcctgaa aaagtaggaa aggtggaaag tatatatcat tttataaat 180
 tttaaattgt acatcagact tttaaaatct gtaatatata agcaagcaaa attattttta 240
 atgacttaat tgtatgctaa tactcatctg ataataaatg cttcttaaag ttgacattta 300
 actgctatca caaagtttta tatgtagaaa agtgggggtcc ttttgaataa aagatcattc 360
 aactaaaaat attaaaattt atttacttgg atggtaatgt aaccttaaaa gcatcataat 420
 aggtaaagtc taatattagt tcccttaaca aaatcctaac tgtataaccag aattaggtca 480
 ctgaaagaac ttgatttgaa ttacgttttag acaaaaatga ttttaantgta aattccctaa 540
 aactttctaa atgcataant tgggcaaaaa agnnaancca cggttaccag tgtaggaagt 600
 taca 604

<210> 4106

<211> 622

<212> DNA

<213> Homo sapiens

<400> 4106

aaatgttttt atgcctaaat cttaantaga atggggaatg catcagcaac cccacacccc 60

ccctccagat cagccatggn tgccaccaac accaggccca atggncattg ttcctccttc 120
 tgaagacagc aacagtcagg acagtgggga atttgccctt gacaacaggc atatatttaa 180
 ccagaacaat cacaactttg gtggaccacc cgataatfff gcagtggggc cagtgaacca 240
 gtttgactat caggtgaaag atattttgtt gctttaatat tgtanatgtg cacgtaatcc 300
 attcttttga agtgtctcat caagaatacc taagatacgt gtttcacttt tcagacttgt 360
 ataaataanc acattctgtc tcagttatca atttttgagt attaaaataa ttagaatttg 420
 ttttctgatt ttttatttca ttaggaaaat ggtataaaag atcattacgg caaacttttg 480
 aaaaaattaa aaatgtataa gtgcaatagc tatatgatgt tttattttct aatttatatt 540
 tcaaaatggg natattttaa tgttaaagac taagagaatg cacagtaatt gaatatngct 600
 caanggttaa gacatgantt an 622

<210> 4107

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4107

tacagagtta ggttcttaca agcctctggt cacaacattt tatctactga ttaatatata 60
 accacgtatt atgtgtgttt ctgtttaaag attcctcatt taatatatat tgttgattca 120
 ctaacattaa gttcatggtc aacatcactc taactcatac ctgaaccaag cttatctaatt 180
 gtgcatattt ttccccataa ggccitttttg cacttaggaa tgccagacag cactttggca 240
 ctacatttgg gggccatttt aaacagtga gcccacaaaa acacaaaaat gtggcaccaa 300
 acagatgggt aaagggctgt tgtggatagt aagagctgaa actagaaagc agcagagatc 360
 acagagttca gcttcagctg gggacgtgtg catatggtaa ctcaaatatt ttgccacttt 420
 gcacatgtct gcaatgacca cagaaatacc acaagtattg gtttgggggt tacacatgaa 480
 ttttagcaaa caggcaaatt cacaaatatg gaatctgtaa atgatcaaga tcaactgtat 540
 atacgcatgc atacactcat ataaatatat aggtttgtat gggctgtttt aatttattat 600
 ataatgtaaa aacattctgc aagcatagtt tttttaagtt aatgatgtgg cttgtngacg 660
 ttttttatga agctacacta agatnaagtt gtantcctan gaagtggata ccataattat 720

tccataatna gggatctacc aataatttta aaccattccg tnctaaatgg a

771

<210> 4108

<211> 661

<212> DNA

<213> Homo sapiens

<400> 4108

```
gtacaaaaaa aaacttataa aatgttttaa aaaatgttca aagcttggga gaaaagcttt 60
cttcattagt caaggtgttt tgatatggta ttaaaatgtc taataaaaga tggcactgcg 120
tgattttatt ttaatgaagt gttatacaat caagaaatgg gggcaagggc ctgccccca 180
ctccctcacc tacctcctta gcattccttc aggctgtac tcggggctcc aggtgtgtga 240
attggtcctc agatagtcag gcctgggtgg agggagtggc aagtcaggcg tgcctcctac 300
aagcttcccta acctcttaag catcatggaa ccagtcagcc ctctgtggag tcattgtgct 360
ggacctctga aaagatctgc aggggcccaag atgttgacgc caccggaggc tgcaaggatg 420
tgggttcttc caggtgtggg cccagccccc ctcttccag cctttgctcc ccatcccacg 480
ttccactcgc cctgcctgtt gttcagtttg cgtctcagtg ctgactcacg ggcatgcttc 540
attgaggccc angaagaggc cctggtttgg ggctgtgcca agctcaganc cctttgacca 600
agaaccaact gctcanggtc acaaaaagtt ggcaaaaatt gcnggnctgg ggcaagganc 660
t 661
```

<210> 4109

<211> 641

<212> DNA

<213> Homo sapiens

<400> 4109

```
agtccccctt gaacgcacct caggatggcc cgtactttgg aaccactagc aaagaagatc 60
tttaaaggag ttttggtagc cgaacttgta ggcgtttttg gagcatatct tttgttttagc 120
```

aagatgcaca caagccaaga tticaggcaa acaatgagca agaaatatcc cttcatcttg 180
 gaagtttatt acaaatccac tgagaagtct ggaatgtatg gaatcagaga gctagatcaa 240
 aaaacatggt tgaacagcaa aaattagatc cagtcacac gttcagcctc ccatctaagc 300
 tgtttgagac ctttgagaga agaagaaaag atgagtgtac taccacactg tagactcttg 360
 gtggccccac agaacatgct gctgagtcac aggaacttct agcctgcctt ggcctgtggt 420
 ttcccaccca ctatacaaac ccaactgcttg tttgttgctt ttcttctcat atttattgtc 480
 aaagatgaat gtttcaaaaa gaaatgacta aggaaggaaa agaaacaaat gctctaaaga 540
 ttttctctcc ccaagcactt ttactggatga aataaaaacc agtnacaatc antatgtaaa 600
 aacgggncca cttccctaaa aaaangtant tttgtagtc t 641

<210> 4110

<211> 749

<212> DNA

<213> Homo sapiens

<400> 4110

gagagaatgg ataaagatct gggatctgtg cagggatttg aagatacaaa taaatccgag 60
 agaactgaga gtctggaagc aggagatgac gagtccaagt tagatgatgc acattcatta 120
 ggctctgggtg ctggagaagg atacgagcca atcagtgatg acgaactaga tgaaattctg 180
 gcaggatgatg cagaaaagag ggaggaccaa caggatgagg agaagatgcc agatccctta 240
 gatgtgatag atgtggattg gtctggctct atgccaaagc atccaaaaga accacgagag 300
 cctggggctg cactcttaaa attcacacct ggagctgtta tgctaagagt tgggatttct 360
 aaaaagttag caggttctga actctttgcc aaagtcaaag aaacatgtca gagactttta 420
 gaaaaaccca aagatgcaga caatctcttt gaacatgaat tgggggctct caatatggct 480
 gcattactac gaaaagaaga aagagcaagt cttcttagta atcttggccc atgttgtaag 540
 gcgttggtgct tcagacggga ttctgcaatt cgaaagcagc ttgttaaaaa ttgagaangg 600
 caccataaaa caagcttaca cgaagtgtc caatgggtag acaatgaatt acttcgattg 660
 gagtcctcgg ttantttaan cgggaaagac tactttgcca aggctccaan gacaatgaaa 720
 nagactggaa ngataataaa actttcaca 749

<210> 4111

<211> 802

<212> DNA

<213> Homo sapiens

<400> 4111

```
gcaggagaat caattaaagc cattgtgaaa gatgtcatgt atatctgccc atttatggga    60
gcagtgagtg gaaccctgac agtgacggac tttaagctgt acttcaaaaa tgtcgagagg    120
gacccgcatt ttatccttga tgttcccctt ggagtgatca gcagagtgga gaagattgga    180
gcacagagcc atggagacaa ttcctgtggt atagagatag cgtgcaagga tatgaggaaac    240
ttgcggccttg cttataaaca ggaagaacag agtaaactag ggatatttga aaacctcaac    300
aaacatgcat ttcctctttc taacggacag gcactatttg cattcagcta taaagaaaaa    360
tttccaatta atggctggaa agtttatgat ccagtatctg aatataagag acagggcttg    420
ccaaatgaga gttggaaaat atccaaaata aacagtaatt atgagttctg tgacacctac    480
cctgccatca ttgttgtgcc aactagtgtg aaagatgatg acctttcaaa agtggcagct    540
tttcgagcaa aaggcagagt ccctgtgttg tcatggattc atccggaaag tcaagcaacg    600
attaccggtt gcagccagcc acttgtgggt cccaatgata agcgctgcaa aagaggatga    660
aaaatacttg caaaacaata aatggatgcc aacgcacagt cacacaagcc ttatcatcct    720
ttgaangccc cgacaaaaac angtgtcncc ggataaccaa acaaaggatg gctgcnttgc    780
ntgggggcaa ttaagaaatt gc                                             802
```

<210> 4112

<211> 629

<212> DNA

<213> Homo sapiens

<400> 4112

```
gttgttggcc acagcgtggg aagcagctct gggggagctc ggagctcccg atcacggctt    60
```

cttgggggta gctacggctg ggtgtgtaga acggggccgg ggctggggct ggggtccccta 120
 gtggagaccc aagtgcgaga ggcaagaact ctgcagcttc ctgccttctg ggtcagttcc 180
 ttattcaagt ctgcagccgg ctcccaggga gatctcgggtg gaacttcaga aacgctgggc 240
 agtctgcctt tcaacatgc ccctgtccct gggagccgag atgtgggggc ctgaggcctg 300
 gctgctgctg ctgctactgc tggcatcatt tacaggccgg tgccccgcgg gtgagctggg 360
 gacctcagac gtggttaactg tgggtgctggg ccaggacgca aaactgccct gcttctaccg 420
 aggggactcc ggcgagcaag tggggcaagt ggcatgggct cgggtggacg cgggcgaang 480
 cgcccaggaa ctacgctac tgcactccaa atacgggctt catgtgagcc cggcttacga 540
 gggccgcgtg gancaaccgc cgccccacg caanccctg gacggctcan tgctcctgcg 600
 caacgcantg caagcggatt gangggcga 629

<210> 4113

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4113

atattgaatg tgcagctgca gcgggcgtga gttgggggag gacgggttgc cgactcgcct 60
 acctagcggg ctcttgattg tcgatatttt gttggcatag gtttatgtag agacgtatac 120
 atatatatag acacactgtc tttaaactta ggctgtatc cgggtgtccga ggcgaactca 180
 gtaagatgat gttaagagga aacctgaagc aagtgcgcat tgagtaaaac ccggcccgcc 240
 ttcgcgccct ggagtccgag gtgggcgaga gcgagccggc ggccgcggca gccatggcgc 300
 tcgctcttgc cggggagccg gcaccgcccg cgcccgcgcc tccagaggac caccgagacg 360
 aggagatggg gttcactatc gacatcaaga gtttcctcaa gccgggcgag aagacgtaca 420
 cgcagcgtg ccgcctcttc gtgggaaatc tgcccaccga catcacggag gaggacttca 480
 agaggctctt cgaacgctat ggcgaaccca gcgaantctt catcaaccgg gaccgtggct 540
 tcggcttcat ccgcttgaa tccagaacct gggctgaaat tgcaaaaagg caaacctggg 600
 ncggcaccat tctcaagagc anacctctac nggattcgct ttcgctncac attggagcaa 660
 ccttgactgt caaagaacct ttctccaant tggtttccaa atgaactggc tnga 714

<210> 4114

<211> 769

<212> DNA

<213> Homo sapiens

<400> 4114

```
attccccaac ctgatagccc tccgcgacgc attacgcacc gcggacagct ggagaggccg   60
aggcgctctc gctttgattt cggcgccctcc gccctcgagg ggagagattg gctgcggccg  120
cgggacgggg tagtgagcgc gtcacttcct gccgctgcca ggcgcgctct cccgcgcgct  180
atgacggcca gcgcacagcc gcgcgggagg cggccaggag tcggagtcgg agtcgtggtg  240
accagctgca agcatccgag ttgcgtcctc ctggggaaga ggaaaggctc ggttgagct   300
ggcagtttcc aactccctgg aggtcatctg gagttcgggtg aaacctggga agaattgtgt  360
caaagggaaa cctgggaaga agcagctctt cacctgaaaa atgttcactt tgcctcagtt  420
gtgaattctt tcattgagaa ggagaattac cattatgtta ctatattaat gaaaggagaa  480
gtggatgtga ctcatgattc agaaccaaag aatgtagagc ctgaaaaaaaa tgaaagttgg  540
gagtgggttc cttgggaaga actacctccc ctggaccagc ttttctgggg actgcgttgt  600
ttaaaagaac aaggctatga tccatttaaa gaagatctga accatctggt gggatacaan  660
ggaaatcatc tctangtggg ccganaagat ttgtatttcc tttaaaaaga caagaaataa  720
ggtcctgggt tangggaatt gaaaaaatgt ntacatttcg gnacaaact   769
```

<210> 4115

<211> 602

<212> DNA

<213> Homo sapiens

<400> 4115

```
ctcaggccta cctcctcctg gcctgttctt ttcttggtcc ccatagaact gactgctttg   60
tgtgccgccc tgtatgcccc ttccccctca ttgtcccgcc tggccgcgct ccatcccgca  120
```

tggcagaagt gctgctcctg ctctgctcc tttcgctggt ggggggaaga gtgatcaggg 180
 ctctcagctg aacctcccag gccagccca ggaccctag tgggtctgct gtgggggctg 240
 ggaaggtgag ttgcttagga aaggagaggg taggagcttt cttgggacct gaacatcagt 300
 tcttggaggc ccccttgtaa aacctgcctc agcctctcct ttgcaaagcc agaaacagga 360
 aagagggctg gggccccac ctctggatgg tgctgaggtc tccaggctcc tggagtgcct 420
 catgctggct aagtctctc tgggctcctc caggggttct gtgtgctctt ggaggtccct 480
 ctgctagtgg tggctaacta gagagtcagc aggggggtga ctgggaaaga gggagaggtg 540
 atgttgctg gtactcccct ccttgcgagc ctcataccac gtnacgtggc ngcnttgggc 600
 ca 602

<210> 4116

<211> 794

<212> DNA

<213> Homo sapiens

<400> 4116

accaatatag agaatcacca gtatagagaa catttagttt catgagatct cctagggaat 60
 gagtgtgaagt agagaaggga aaggggactg aaccttgag tactcagatg cttggacttc 120
 tggaaggtga gcatctggtg aaggaacagc tggatgta agagagtaaa aatctgggga 180
 agaaagatag atcagctgtg tcagctgctt ctattgggtg gagtacaatg aggcctggtg 240
 actgcagaag tcaagggcag ctcccttga ggggctcttg agagaatggg aggaggtaac 300
 ttgaaaacaa ctagtttaga gcattttctt gagcggtttg gctaatgagg agagcataga 360
 aatgggacag taactgaaag aaaggatatt ggggatcaag caggggtttt ttgaaacata 420
 gaagttagaa tttttttgta tatagaatgt ttgatctcac taaagagaaa gatcaaatga 480
 aaaggaggaa tttggcatga cggaggaagg aggagaattg cttgtctgct atatccaagg 540
 cccctgaaaa aggatgggat ccagtgcag agtggttggg catgcacttc taggagcaag 600
 ggaaggcana gggaggagaa taaaccttaa aacangtcac accaaaccgg tagtggnaaa 660
 taagtgcact ctctccac tgttgatact ggagatttan aatttttaac acaatttttt 720
 aaaccnctac acatttgata ggtttgccta aattttacct ttattacta cnganaataa 780

actttttcan atta

794

<210> 4117

<211> 731

<212> DNA

<213> Homo sapiens

<400> 4117

tcactagaat gtaaaaatca caaaaggaag ttgtttgttt tgttcacttg tgtatctcta	60
ataactagaa caatgctcag tatatgctgg attgtagat gaatggacag gactttaaat	120
aagtgttct ttagctatga tgaatgacta gttttaatt acgaatctgt cacaacctag	180
tacttttgta aaatgcggtg gaaatagtat atatgtattt attagtgtca tgttattaaa	240
atcaacaggc attaaattgt cagattgcta taaaaacttc taaatgtttt caattttttg	300
ctcataatga ctttctaata aacttggttg ggtcagcacc catttgcaga cgacactatc	360
agtaccactg tactagaaca tatttaccat tttatagtca gcagttaaaa tgtgaaagct	420
aaatgaagga cgtattcttc tccttgctag acaagaagaa gccacttaag agctgatgtc	480
acattatgat ggctgaattc ctgcaggatt attaacttac aaaaagggtt ttttagtaat	540
accaggaaaa ttgataagt accaattcta tgcagagata agtctttttc agtggactca	600
attaaaacat cataatcctc attttaagtc tgcatttaa tttgagggtt gnttttaata	660
nctgggttang tgttattcaa tgaantctca gttttacagg gttaaaaata ttttaacca	720
agtaaacacn g	731

<210> 4118

<211> 708

<212> DNA

<213> Homo sapiens

<400> 4118

taattgtaaa gttttgttat atatctttta tcacaacttt agttgtaagt aaacaaagta	60
---	----

gaggctaaat gctaccttat acatttatag gttgcttaag tcgtgaagca atatgagtca 120
 tatatgtagc acataacata tactgtatat aagtcaagtt gtacatagtt taaagaaaat 180
 cagggtgtgca gaaactcaga ccaaattggg aagtatttgc attataaaat aactcattat 240
 aaggattttt cagtttagtag atctccatag taaatttcat tcagcaaatg tgtatttttc 300
 ctattttattt atttttttat ttattgagat gaagtctcgc tctgttgccc aagctggagt 360
 gcagtggcgt gatcttggct cactgcaacc tctgcctccc aggttcaagc gattcttctg 420
 cctcagcctc ctgagtagct gggactacag gtgcgcacca ccatgcctgg ctaattttta 480
 tatttttagt agaaacgggg ttttactatg ttggtcaggc tggctctgaa ctctgacct 540
 tgtgatcctc ccgcctcggn ctcccaaaaag tgctgggatt acaggcgtga gccactgtgc 600
 caggtccaag ttanttantt atttattgta nagatgggct ctactgtgt tggncagggg 660
 tgggcttgaa ctctgggnet cgagcaatcc ttccatctca gtctccca 708

<210> 4119

<211> 670

<212> DNA

<213> Homo sapiens

<400> 4119

attacatggg ttattcaaatt cctgggtcct gagctgctgt ttccaatcat gaagaaaaac 60
 agtgaatcca gtgaacaggg attctccaag cagtcatttc agggggctcc tgctgacccc 120
 gccactcagc agtgcactcc ccgcatcaca gcagggcgtt tacatagaaa gacgtttttg 180
 tctcgattag ctccgatgct ttgcgctgaa gttgcaaaaag atctgtgcac tgaacagtga 240
 aggtggcctt cggcacactc cccgctgccc cggaagagac atcctttgac cctctcagca 300
 agtctgtgtg tgtgcgtgtc tgtgcgtgtg cgcgcggtgt tgcattgtgt tcaaaattgc 360
 cagtgttgtt taggcaatgt aacatttacc ggctgtgtac agcaaacaag ctatttttta 420
 gaaaccgacg tttcagggaa gaggggagag agccgcgggg tcctgcccgt ggttactatg 480
 aatgtattgc tggttgagga catctcgatn caaagaacag ccgttcctgt gcgggccttc 540
 gttgccctcc tgctttcaat ttttaaagaa atcttgagt cttgaaggcc ttggaactga 600
 attttttttt ttggtccanc caaatttagc antgttttaa atgggancta aggtaaanaa 660

caaaacntgc

670

<210> 4120

<211> 751

<212> DNA

<213> Homo sapiens

<400> 4120

```

atatatcttt gggaaatata tcctcaagtc cattaccctt tttaaataca cttatttggc 60
tttgattattg ttgttgagtt gtaggagttc tgtattttct ctgggtacta accccttttc 120
aaatacatgt ttgaaatct gttctcccat ttgttgccct ttttgctatc agtaatgtcc 180
ttcgatgcac aaaagtttta aatttttatg cagtccaatt tattttttct tttattccct 240
gtgcttttgg tggcatgtct aagaaatcat tgccaaactc aggttcatga agatttcacc 300
ctatgttttc ttctaggagc tctacagttt tagctctatg aaaacaacta cttaggttca 360
aaccaagcct accaccaca caccactaa ctccatgcc ttatccgctg tcccatcacc 420
ccagctggta gccagtcata ttggccttgt ttctctctga ttctaagtgt aaacaataaa 480
gaagtccctt aggttttgtc ttacacagtag acacatctct acaagtgcac ttactgaacg 540
tccagatggc tggtttgtgc agttgagcat gtaaggtcac atgggggtcaa gtcagcttta 600
ttcttcccta tgaagttttt cctggtttgt tttcaaaac cccaagttgg gccgtttttt 660
ggaccacaat aagtatttga atgancgtca ngaangntt gcaagaaaag cccattgcc 720
atagctaaag gaaataactt tangcctgat t 751
    
```

<210> 4121

<211> 567

<212> DNA

<213> Homo sapiens

<400> 4121

```

ttttctggc agaaggcggg gttctcctcg tacgctgcgg agtctctgcg gggtgtagac 60
    
```

cggaatcctg ctgacgggca gagtggatca gggagggagg gtcgagacac ggtggctgca 120
 ggtctgagac aaggctgctc cgaggtagta gctctcttgc ctggaggtgg ccattcattc 180
 ctggagtgct gctgaggagc gagggcccat ctggggctctc tggaagtcgg tgcccangcc 240
 tgaaggatag ccccccttgc gcttccctgg gctgcggccg gccttctcag aacgaagggc 300
 gtccttccac cccgcggcgc angtgaccgc tgccatggnt ttccccatc ggccggacgc 360
 ccctgagctg cctgacttct ccatgctgaa naggctggct cgagaccagc tcattctatct 420
 gctggancaa cttcctggaa aaaangattt attcattgag gcagatctca tgagcccttt 480
 ggatcnaaat tgccaatgtc tccaacctga aagcancacg aagtagacaa gctatacaag 540
 ggtggagaac annccagccc tcanctc 567

<210> 4122

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4122

taaatttaat atctgggcaa ttgagacctt taaacttact ttaaaagtat gatcttgatg 60
 tataatgatac tgttttgtct ttgctatatt aacagaatta gaggggtgtt ctgcaattca 120
 aataccttat atattccaaa ttttattctc tataatggac ttttaaaata aaaggtatat 180
 gtgcttcaag agggcaaaat ttgaatcatg agctaatttg ctaagcatca gattatagaa 240
 aagcatcctt gattaatttg gaactgtgaa agggggcgagg taaaactgtt ttctgcagaa 300
 atttactagt gcagcaacca tttaaattaa atgtttgtta acataatagt gatggcattt 360
 tctcctcccc ctcttgttgg ttttgtccaa ctagatgtta cagtggcagt tgcactgact 420
 gttaagtgtt taaatgatga caccattatg tgaagtgatt ttgaaatgag agattccagc 480
 caagaattac atctgctccc atctccttca aatcatactc tctggcagta cagattatga 540
 ttgatttggt tgtgacagat tgcaggaaac agtcattgat ttttcaatat ttaccttaa 600
 aattatttac aagttgtaac catggggagg tattttcatg ggctgtcagc ccctgaaaga 660
 ctaggataat attccctgct ctctgacaag acaaattacc tgtaatgagt gcagtaactg 720
 aaggggtana cctttaattt aaaataaggn caataacccc cagtgactaa ancgaatatg 780

natttagcaa aaatgaaacc ccggagtaac gtngaaaaat

820

<210> 4123

<211> 514

<212> DNA

<213> Homo sapiens

<400> 4123

gagttcgggg ccagcagccg tctaccggt gtcgcgttct gtgttggtgc ggccctggat 60
 ccggcgtcag ggcgaccggg cggacgaggt ggagccagag tctgtcaggc gggttggtga 120
 agggcgcggg gccgggcacg gcgttgggag tgcgcggcag ggaccggcca ggcgggctgc 180
 aggcacctca gagcccggga caccacctca acgtccgcag gcgcgatgaa ggcactgac 240
 ttagtggggg gctatgggac gcggctacgg gcgctgacgc tgagcacccc gaagccactg 300
 gtggacttct gcaataagcc catcttgctg caccaagtgg aggcgctagc cgcggcaagc 360
 gtggaccacg tgatcctggg cgtgagctac atgtcgcagg tgctggagaa gggaatggag 420
 gcacaggagc agaggctggg aatccgaatc tccaagtccc atgaagaaga gcctttgggg 480
 acagcttggg nccctggngc tnggccctga ccta 514

<210> 4124

<211> 780

<212> DNA

<213> Homo sapiens

<400> 4124

cgcttttaaa atgattcgta ccaacgtttc tcatgtggtt ggccagttag atgacataag 60
 aaaaaaccct aggaagtttg ttgacctgaa tgacaacatt gaccacaatc ataaagatgc 120
 tcagacagtg aaggctgttc tcagggactt ctatgaatcc atgttcccca taccttccca 180
 atttgaactg ccaagagagt atcgaaaccg tttccttcat atgcatgagc tgcaggaatg 240
 gagggcttat cgagacaaat tgaagttttg gaccattgt gtactagcaa cattgattat 300

gtttactata ttctcgtttt ttgctgagca gttaattgca ctttaagcgga agatatttcc 360
 cagaaggagg atacacaaag aagctagtcc caatcgaatc agagtataga agatcttcat 420
 ttgaaaacca tctacctcag catttactga gcatttttaa actcagcttc acagagatgt 480
 ctttgtgatg tgatgcttag cagtttggcc cgaagaagga aaatatccag taccatgctg 540
 ttttgtggca tgaatatagc ccactgacca ggaattatit aaccaaccca ctgaaaactt 600
 gtgtgttgag cagctctgaa ctgattttac ttttaaagaa ttigtctatg gacctgtcat 660
 cccttttata aaaaggctca ctgacaaaga ggacaagctg ttaatttccc acagcaatca 720
 attgcagact aaactttatt anggagaaan cctaattgcca acctggggaa ntganttgcn 780

<210> 4125

<211> 679

<212> DNA

<213> Homo sapiens

<400> 4125

atgatggttg gcagttagct tcctggagtg tggacgggtc cttccctgcc tgactgactt 60
 gtccacaggg cagcaagaag atgcgcccc tgggtgtgtc cgagtgtctc ctgtaggcag 120
 ctgagctttc gcaggtctgg ctgggagcca aggttaccaa tctgggggggt aaccagcca 180
 tcatctggat gagcgttggg gtctttctgc tctggattgc agggcagacg tcgttttgtg 240
 ctggtcaggc cctcgcctg cctgattccc ttggagcccc ccaagacagg agatgggcag 300
 atgtcctctg aagtggcatg ggctgcttgc tcaactggcct tcccaggacc ctgccaggt 360
 ggtgctgctt ggccccaggt cgaattcctg tgctggcagc aagcaggggc ctgggccgtc 420
 ggctggctgg ggctcatgca gccatcccc ttgcagccat ccgggtgacc tgcataagtt 480
 cctgcgggggt ctccaacaag gctaatagca cagcgtgggt agtggangga gggttacttc 540
 aacagttccc tgtcnctggc aaacaagggg agcctgccgc tggaggagca caagcttccc 600
 cttccaagtt cctgttctt gncactngca cccacgtcct ttgaggggtc tttcggggaa 660
 gatcntgcaa caanntgaa 679

<210> 4126

<211> 728

<212> DNA

<213> Homo sapiens

<400> 4126

```

tcgcagttca aacctggtat gccatcaaga aaattcatac aggagaaaag ccttaciaat   60
gtaatcaatg tggcaaggtc tttaatcaag catcatacct tacaagacat caaataattc  120
atactggaga gaggccttac agatgtagta aatgtggcaa agcatttcga ggggtgttcag  180
gccttactgc ccatcttgca atccatactg aaaagaaatc tcatgagtgt aaagaatgtg  240
gcaagatctt cactcagaag tcttccctca ccaatcacca tagaattcac attggagaga  300
aaccttaciaa atgcaccctg tgcagtaagg tcttcagtca caattctgac cttgcacagc  360
atcagagagt tcattcatga gagtccttac aaactgtgta tggcaaaacc atcatcatga  420
gttctagcat taatcaacat cagtgagtcc atactaagtg gaaatcatat aaatgaaatg  480
tatgtgacac aggctttatc aaggcctgcc aaatcactgg gacatcacca catcactgtg  540
gaggatgaaa gcacacagat gaattgtgtg tacttgggct attattcaag ggccattgct  600
atagaacacg atagggattt acacaagaag taactctgtc tctgggtctc tgataactaat  660
ctatgatatt gcatgatgca agataanggc taagtcaaaa tangttgaat ccccatgacc  720
cngatggt                                         728

```

<210> 4127

<211> 643

<212> DNA

<213> Homo sapiens

<400> 4127

```

attaciaaagg ttgcttaact tctaattatt tgatcactga ggaaaatcca gaaagctaca   60
caacactgaa ggggtgaaat aaaagtccag cgatccagcg aaagaaaaga gaagtgacag  120
aaacaacttt acctggactg aagataaaaag cacagacaag agaacaatgc cctggacatg  180
gctccagaga tccacatgac aggcccaatg tgcctcattg agaacactaa tggggaactg  240

```

gtggcgaatc cagaagctct gaaaatcctg tctgccatta cacagcctgt ggtgggtggtg 300
 gcaattgtgg gcctctaccg cacaggaaaa tcctacctga tgaacaagct agctgggaag 360
 aataagggtc tctctctggg ctccacagtg aaatctcaca ccaaaggaat ctggatgtgg 420
 tgtgtgcctc accccaaaaa gncagnacac acctagncc tgcttgacac tgagggcctg 480
 ggagatgtaa agaagggtga canccagant gactcctgga tcttcaccct ggccgtcctc 540
 ctgaagcagc actctcgtgt acaatagcat gggaaccatc aaccagcagg ctatggacca 600
 actgtnatat ccttttgn gn cccanggaca gnaccaagg tca 643

<210> 4128

<211> 833

<212> DNA

<213> Homo sapiens

<400> 4128

tcaaaccttg tactactcag ctgatcaciaa gttgcttgat gggaacctac tagatggaca 60
 ggctgagggtg tttggcagtg atgatgacca cattcagttt gtgcagaaaa agccaccacg 120
 tgagaatggc cataagcaga taagtagcag ttcaactgga tgtctctctt ctccaaatgc 180
 tacagtacaa agccctaagc atgagtggaa aatcggttgc tcaaaaaaga cttcaaataa 240
 cacttacttg tgcctggctg tgctggatgg tatattctgt gtcatttttc ttcattgggag 300
 aaacagccca cagagctcac caacaagtac tccaaaacta agtaagagtt taagctttga 360
 gatgcaacaa gatgagctaa tcgaaaagcc catgtctcct atgcagtacg cacgatctgg 420
 tctgggaaca gcagagatga atggcaaact catagctgca ggtggctata acagagagga 480
 atgtcttcga acagtgaat gctataatcc acatacagat cactggctcct ttcttgctcc 540
 catgagaaca ccaagagccc gatttcaaat ggctgtactc atgggccagc tctatgtggt 600
 aagtggatca aatggccact cagatgacct gagttgtgga gagatgtatg attcaaacat 660
 agatgactgg attcctgttc cagaattgag aactaaccgt tgtatgcang agtgtgtgct 720
 cctgaatggg gaagggtata catccgttgg tggctccgga tccatatggg ncaaaaaagg 780
 gcctggaaaa aattgggtgan ggtatttggg cctnggnaac aaaagtntt ggg 833

<210> 4129

<211> 633

<212> DNA

<213> Homo sapiens

<400> 4129

```

gatgagcacc taggaggact ttcctcatgt ttgccttttc acacacatgc aaatgtttca   60
ttgaaaatct tctgaaagcc gcaatcttgc cagaatcccc agtaatgagc ttcgttctta  120
gtatactaag aatttagttt atgtgaactt agaaactatt gcactcccc cacaagtaaa  180
aagctgtaag atcatttctg aaataattaa aataactcaa atttaagcaa gatgataaaa  240
acatacatga aaacttaaaa atataaatgt aaatgataaa atttttcatt tgtgtgaagc  300
actgcaaaaa attttccaa aaaaagctgt gcgaaaaaac acgtagtagt aataggaacc  360
caaaaaactt aatcaccttt ccagatacca gagcaaaatc ataaaggaac ctgccccata  420
gactgtcacc caaatgggtgc gtgctactgc cagaatggac cttagccatt ggttccttca  480
ntctggcttt gcagaggaag tttcatgtca gatactgagc ccaagctgca gctaccccag  540
cagagcctca nnggctttcc cgcactgtct tgggaaacat gggcgtactt tgaggtctcc  600
tgcaancgtg ttgtttgggg tcccccaaat gnn                                633

```

<210> 4130

<211> 739

<212> DNA

<213> Homo sapiens

<400> 4130

```

gcttccatga ctaacttggt caagatgggc tttccttcta aaacagacag ccctagctgt   60
gaatattctc ggtttgattt tgatagcgat gaggacttca atgctttctt caactcctcc  120
cgagcacaac aaggagaggt gatgaggttg gcatgtcggt tggatcccaa aactagcttc  180
cagatggctg gggagtggct aaagtatcaa ctatcaactt ttcttgatgc tggttctgtg  240
aattcttggt ctgcagttgg aactggagaa ggaagcctct gticcgtctt ctcaccttca  300

```

ttcgtgcagt gggaagccat gactcttttt ttggaaagt ttatcaccca gatgtttcga 360
 acactaaata gagaagaaat tcctgttaat gatggaatag agctattgca gatggttctg 420
 aactttgata ccaaggatcc cctcatcctg tcctgcgtcc ttactaaagt ctctgcactc 480
 tttccatttg tcacctacag accaagaagt tcctgcccc aagtcttctct aagctatttt 540
 catctggcac ttttгнаact gttgaagaaa gtaaggncct caagaacctg ggcagtgagg 600
 aatgtgagga ggcattgctt ttcttccaac atcaaagatg tctcgtgact accccaagct 660
 tgtgctgccc aattttgaca tgcttttata accatgtgaa ngcaaaactn tctccaattg 720
 agctaactcc ctgnnanaa 739

<210> 4131

<211> 695

<212> DNA

<213> Homo sapiens

<400> 4131

cggcccaggc catggctatg atggggagga gagagcgggt agtgatagct tcgggcctgg 60
 agagtgggat gaccggaaag tgcgacacac ttttatccga aaggtttact ccatcatctc 120
 cgtgcagctg ctcatcactg tggccatcat tgctatcttc acctttgtgg aacctgtcag 180
 cgcctttgtg aggagaaatg tggctgtcta ctacgtgtcc tatgctgtct tcgttgtcac 240
 ctacctgac cttgcctgct gccagggacc cagacgccgt ttcccatgga acatcattct 300
 gctgaccctt tttacttttg ccatgggctt catgacgggc accatttcca gtatgtacca 360
 aaccaaagcc gtcattcttg caatgatcat cactgcgggt gtatccattt caagtcacca 420
 tcttctgctt tcagaccaag gtggacttca cctcgtgcac aggcctcttc tgtgtcctgg 480
 gaattgtgct cctggtgact gggattgtca ctagcattgt gctctacttc caatacgttt 540
 actggctcca catgctctat gctgctcttg gggccatttg gttaccctg ttcttgggtt 600
 acgacacaca agctggncct ggggaacctg aatcacaaca tcagccnngn ngactacatc 660
 actggggggc ctgcangatt tacacagaca tcate 695

<210> 4132

<211> 772

<212> DNA

<213> Homo sapiens

<400> 4132

```

acagagcctt tcaattcaag cttgggggtga gctgcacttc aggcattggg atataatagt 60
gtgatgaacc attcttctga aggttcttct gaaaagctgc tggctcttggg atactgtgag 120
agcccccttc attgctcttt agaagtaatt taaatttttc tgctacattg tctgctcagc 180
tcgtattctg gtcataagagg aacctgaagc cagagaaact agacaaaaag gaacctcttt 240
caggagctat aaaagaaagg gaggaatcat gtccacaatt gcagctttct atggcggcaa 300
gtccattctc atcacggggg ccacaggctt tctgggcaaa gtgctaattg agaaactgtt 360
tcgcaccagc ccagacctga aagtcattta catccttgtg aggcccaagg ctggccagac 420
actgcancag agggttttcc agatcctaga cagtaagcta ttgagaaag tcaaagaagt 480
ttgtccaaat gtgcatgatg aagatcagag ctatttatgc agntccaatc aggaatgact 540
ttgccatcag caaanaggac atgcangagc ttctcncctg tanaaacata atatttcact 600
gtgcagccac tgtacgcctt tgaccgacac tctcaagaca tgccctgtgca aacttaacgt 660
cactgccaac cggnagctc cttgcttaag gctactcaga ttccaaagct ggnaagcctt 720
ttatacatat cnccactgcc tattcaaatt gtaacctga nagccacatc gn 772

```

<210> 4133

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4133

```

agacgttggt gcttgggcgc ttctccgctg cgtgtaggtg aagggggctt cctgaccgag 60
acatggattt aggtgctatt acaaaatact cagcattaca cgccaagccc aatggactga 120
tccttcaata cgggactgct ggatttcgaa cgaaggcaga acatcttgat catgtcatgt 180
ttcgcatggg attattagct gtcctgaggt caaacagac aaaatccact ataggagtca 240

```

tggtaacagc	gtcccacaat	cctgaggaag	acaatgggtg	aaaattgggt	gaccccttgg	300
gtgaaatgtt	ggcaccatcc	tgggaggaac	atgccacctg	tttagcaa	gctgaggaac	360
aagatatgca	gagagtgtt	attgacatca	gcgagaaaga	agctgtgaat	ctgcaacaag	420
atgcctttgt	aattattgg	agagatacca	ggcccagcag	tgagaaactt	tcacaatctg	480
taatagatgg	tgtgactgtt	ctaggagggtc	aattccatga	ttatggcttg	ttaacaacac	540
cccagctgca	ctacatgggtg	tattgtcnaa	acacgggtgg	ccgatatgga	aaggcaacta	600
tagaagggtg	ctaccagaaa	ctctctaagg	cttttgtggg	actcaccaaa	cangcttctt	660
gcaatggnga	tgatacagat	cacttaagggt	ttgactgtgc	aaatggcata	agggnccctga	720
anctaaggga	aattggacac	tacttctcan	aagggcctgt	caantttaaa	ncggtttaag	780
gaa						783

<210> 4134

<211> 776

<212> DNA

<213> Homo sapiens

<400> 4134

acattaaccg	gcaggatgtc	ggagggtgcg	ctgccaccgc	tacgcgccct	ggacgacttt	60
gttctggggg	cggcgcgtct	ggcggctccg	gatccatgcg	acccgcagcg	atggtgccac	120
cgcgtcatca	acaacctcct	ctactaccaa	accaactacc	ttctctgctt	cggcatcggc	180
ctcgctctcg	ccgggtacgt	gcggccactt	catacgctcc	tgagcgcgct	ggtagtggcg	240
gtggccctcg	gcgtgctgg	gtgggcagct	gagaccgcg	cagctgtgcg	ccgctgccgc	300
cgcagccacc	ctgcagcctg	cctggccgca	gtgcttgccg	tcggcctcct	gatgctctgg	360
gtcgcggggc	gcgcttgac	cttctgtt	agcatcgccg	ggccgggtgct	tctgacctg	420
gtgcacgcct	cgttgccgct	gcgcaacctt	aagaacaaga	ttgangaaca	agatcgagag	480
cattggtctc	aagcggacgc	caatgggcct	gctactanag	gcactgggac	aagagcanga	540
ggctggatcc	taggcccctg	gggatctgta	ccaaggacc	tggagaatac	acccacccc	600
cagcccataa	ttgggaaccc	agaagccctt	tcccancact	taaaacagga	gcctanagcc	660
ccctgcccac	acaaaacagg	acatctgtga	cgctctaccc	nangccatcc	ccaaanctaa	720

gatatccctc aaaaccagcc cccaattacc tanggggaca agnagtcctt ccccaa 776

<210> 4135

<211> 689

<212> DNA

<213> Homo sapiens

<400> 4135

aagaagatgt ctcaagagtc tgttggagca tctgggtcaac gccctgtttt ctgccctgta 60
 cacaacaag aacagttgaa acttttctgt gaaacatgtg atagattgac atgtagagac 120
 tgtcagctat tggaacacaa agaacatagg tatcagtttt tggaagaagc ttttcaaaat 180
 cagaaggggtg caattgagaa tctactggcg aaacttcttg agaagaagaa ttatgttcat 240
 tttgcagcta ctcaggtgca gaataggata aaagaagtaa atgagactaa caaacgagta 300
 gaacaggaaa ttaaagtggc cattttcacc cttatcaatg aaattaataa gaaaggaaaa 360
 tctctcttac aacagctaga gaatgttaca aaggaaagac agatgaagtt actacagcag 420
 cagaatgaca tcacaggcct ttcccggcag gtgaagcatg ttatgaactt cacaattgg 480
 gcaattgcaa gtggcagcag cacagcacta ctatacagca agcgactgat tactttccag 540
 ttgcgtcata ttttgaaagc acggtgtgat cctgcccctg ctgctaattg gagcaatacg 600
 tttccantgt gatcccacct tccggggcaa angatgtagt ccaatttang gtaatcctag 660
 taatangnga gtaaaccagc tccttggtta 689

<210> 4136

<211> 664

<212> DNA

<213> Homo sapiens

<400> 4136

cgcatgcgca gaaacactgg gcacaggggg aggttaactgc agtaagtccc gcttggccct 60
 ggagtccacg cggattttcg aagctggggc tggcaagagg ccgctggaca ccacgctcca 120

gtcgtcagcc cacttcctag ctgaacagcg cgaggcggcg gcagcgagcc ggggtcccacc 180
 atggccgcga attattccag taccagtacc cggagagaac atgtcaaagt taaaaccagc 240
 tcccagccag gcttcctgga acggctgagc gagacctcgg gtgggatgtt tgtggggctc 300
 atggccttcc tgctctcctt ctacctaat ttcaccaatg agggccgcgc attgaagacg 360
 gcaacctcat tggctgaggg gctctcgctt gtgggtgtctc ccgacagcat ccacagtgtg 420
 gctccggaga atgaaggaag gctggtgcac atcattggcg ccttacggac atccaagctt 480
 ttgtctgntc caaactatgg ggtccatctt ccggctgtga aactgcggag gcacnntgga 540
 gatgttccaa tggggtaaaa actgagggag tccaggggag tacaccgagg aatgggcang 600
 tgaangaaag gagacnaggt aattccctac aacaacttga attggaggtc anaaaatcat 660
 ncaa 664

<210> 4137

<211> 724

<212> DNA

<213> Homo sapiens

<400> 4137

gagaaatgcc tgaaattgct ccaggctggg gctcagctgc tgagctgggc tagttgttaa 60
 aatattcagt ggtccccaac ctttttggca ccagggacca gtttcgtaga aggcaatttt 120
 tccatggact ggggaatgaa actgttccac ctcagatcac cgggcattag attctcataa 180
 gaagcatgca acctagatcc ctgcgatgca cagttcaca cagggttcaa gctcctatga 240
 gaatctaata ccactgctga tctgacagga ggcggagctc aggcagtaat gctggctgaa 300
 ctgctgctca cctcctgatg tgaagcctgg ttcctaacag gccacggatg ggtgccggtc 360
 catgatccgg gggatgggga cccctgaata ttggctagct attgccctga gccctcccta 420
 gccaaaccca gtcactctga tcttgtcccc aggacctct aaacctctcc accttcanc 480
 anctaaaggg tcccangacc ctctccatc actatgacat gcacccatcc ctttctgaat 540
 ggtcaagtgc ccagctgcac tantttgtta aatattttga atctcaactc cgggtgcaag 600
 ggagtcctgg gctccatgaa gaaaagtgag tggggtaaac ttgggggcaa ctttgcttaa 660
 actgctctga ctttcccat tccaanatc cctgcattgg angggttgtg attgggaant 720

tgnn

724

<210> 4138

<211> 667

<212> DNA

<213> Homo sapiens

<400> 4138

```

gttttgcagt ctttcacttt aaaaactcaa aatggaaaat tatatacttt attttaatat 60
ttacaaatat ttacaaatat ttatitttaa ataaaatgta tataccatgt agtatgttgt 120
atttatttac tcaatgttct tttaagtgtt tcaggctgca tgtaccaagt agttcagacg 180
attggctcgg atggaaaaaa tcttctgcaa ttacttcaa ttcctaagtc ttctggaaat 240
cttataccac tagttcaatc ttcagtcatg tctgatgctt tgaaagggaa tacaggaaaa 300
ccagttcaag ttacttttca gactcagatt tccagctctt ccacaagtgc atcagttcaa 360
ttgcccatTT ttcagccagc cagttcttca aactattttc ttacaagaac agtagataca 420
tcagaaaaag atccataatg agatggcatc aacatcagat aaaggtgccc aaggnagaaa 480
tgacaagata gattctcaag gaagaagtaa taaggcatta catctgaaga gtgatgctga 540
atttaaaaag atatttggcc ttactaagga ttgagagng tgccttactc gaattcctga 600
ccatttggac ctctggagaa ggtttccgnt tcctttagca agtttggnaa agagtgggac 660
ttncaan 667
    
```

<210> 4139

<211> 814

<212> DNA

<213> Homo sapiens

<400> 4139

```

gaatgaaggc ccatgtagca aaatactgat tcaatgtaaa gcaaactttg aaaataagct 60
aatagtcctt aaagaaaaac ttatttcaga tagcaaaaaga caagccaatg aactcattag 120
    
```

ttttaaaaac caaagtcaag aaaggctgaa taagaaaaag acagattatg aaaaagaatt 180
 attggaaaaa agccggaagt tggctttaac tgtaaagggc aaagaattga gtgaggaaga 240
 gttacatgag aaattcaatc aactttggaa aaagtgggtg tgtgatgtat ccacaactct 300
 cccgcaagtt acagagcctg acattgattt ggattctgaa aacatccttt gggagtattt 360
 caaaaacaag acgaatgtcg tgggtctact gacaaattct gcagagaagt ttcaaataca 420
 ttatgataaa catatcaagg tgaataagaa atataaccat atcccaatga cattaacagt 480
 ctttgagaaa gagttcatta atatgactac tgactacatt gtttcaagat ttaataaaat 540
 tattaacaac atgtggaaac aacagtgtgg ttacaatcca aattatttcc atgagattct 600
 aaagacaata gaagaaagaa gtgaaatctg cctctactca gaagagatac acatttaca 660
 atacatttat cantgactta nggtgtgttt taattcaaag gagcaagaga gaaatttaag 720
 ggaatgcaca agggcaatca agagagcaaa tggatcccg taaactacct agaaaagtta 780
 gnaaagtgg nttcctcaac naggttttaa natt 814

<210> 4140

<211> 677

<212> DNA

<213> Homo sapiens

<400> 4140

tttaaagcat gccatcacca catatctatt ttgcacttac cctgatgcgc atgagggccg 60
 cctttcatat atgagaagca aaaaggctcag caactgtaat ctgtatcgcc ttggaaaaaa 120
 gaagggacta cccagccgca tgggtggtgc aatatttgat cccctgtga attggcttcc 180
 tcctggttat gtagtaaatac aagacaaaag caacacagat aaatgggaaa aagatgaaat 240
 gacaaaagac tgcattgctg cgaatggcaa actggatgag gattacgagg aggaggatga 300
 ggaggaggag agcctgatgt ggagggtcc gaaggaagag gctgactatg aagatgattt 360
 cctggagtat gatcaggaac atatcagatt tatagatagt atgttaatgg ggtcaggagc 420
 ttttgtaaag aaaatctctc ttctccttt ttcaaccact gattctgcat atgaatggaa 480
 aatgccccaa aaatcctcct taggtagtat gccattttca tcaagatttt gaggattttg 540
 actacagctc ttgggatgca atgtgctatc tggattctag caaagctgtt gaagaagatg 600

actttgtggt ggggttctgg aatccatcan nagaaaaact gtgngttga caccgggaaa 660
agnantccaa tttctta 677

<210> 4141

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4141

ctggggaaat ttcctatcgc acgtctgctg cagcagtctc ctgtttctcc tcctaccttc 60
tccatttttc tagtcctgc agggcataat tggaatatca tttggagaaa gtgtcatgga 120
agttctgcgt ccacagctta taagaattga tggccggaat tacaggaaga atccagtcca 180
agaacagacc tatcaacatg aagaagatga agaggacttc tatcaaggct ccatggagtg 240
tgctgatgag ccctgtgatg cctacagagt ggagcagacc ccacaaggat tccggtctac 300
tttgagggcc ccagcttgc tctataagca tatagttga aagagagggg acactaggaa 360
gaaaatagaa atggagacca aaacttctat tagcattcct aaacctggac aagacgggga 420
aattgtaatc actggccagc atcgaaatgg tgtaatttca gcccgaacac ggattgatgt 480
tcttttggac acttttcgaa gaaagcagcc cttcactcac ttccttgcct tttcctcaa 540
tgaagttgag gttcaggaag gattcctgag attccaggag gaagtactgg cgaagtgtc 600
catggatcat ggggttgaca gcagcatttt ccaagaatcc taaaaagctt catctaaact 660
attggggaat gtttgggtgc cntttgagtt gaaggaagag attccagcag gncnatgtta 720
agnatgctac aagcaagtgt taaaagaggg aattcattaa ntgga 765

<210> 4142

<211> 663

<212> DNA

<213> Homo sapiens

<400> 4142

tttataaatg ttgctttctg atttttatca agagtggagaa aattaaaatt attgatttgc 60
 aagtagtaaa cagttcatat ttigatttcc cctcatttta gtttaataata atttgcaata 120
 aatgtacata ttgttggttg tttcataaag catatcactt taaaatgggt tttactcctg 180
 tgattatggt ggaatatttg gaattttgaa ggagtaaaga ctgtccagca tttggtttta 240
 taatgtttgt caccagattt ttattaatgt aaaaaaatc aatttttaaa aaatagttgg 300
 actttggcag cttttaagga aagttggagg tgtttttagga ttgctatcaa ttttcagcat 360
 tgtgctattt ggaaataagt gttttgcttt tgtctgatgg tctgggctca tttttatggt 420
 tatttttagaa aactgttgca tcaatatatt atgtttcttg gcattgttca gcataggtaa 480
 tgtgtgcact ttatgtgtac acataatcat atttaagttt ttgcataaa ataaatgctt 540
 ctagatgtca tggcagtctt tttaatctct ttaacatatg ctttctgtg aattttttca 600
 tgttaaagag ctnaangtca taacatggat tacagtcaac tctccattan tctatatnaa 660
 ata 663

<210> 4143

<211> 625

<212> DNA

<213> Homo sapiens

<400> 4143

actgcggtgt ggactcgagg gctgggcgcg gggccggcgc agaagccgcc agctggagac 60
 gatggtggac cacttgcca acacggagat caacagccag cgcatcgcg cagtggagag 120
 ctgcttcggg gcctcggggc agccgctggc gctgccaggc cgagtgtgc tgggcgaggg 180
 cgtgctgacc aaagagtgcc gcaagaaggc caagccgcgc atcctcttcc tctttaacga 240
 catcctgggtg tatggcagca tcgtgctcaa caagcgcaag taccgcagcc agcacatcat 300
 ccccttgag gaggtcacac tggagctgtt gccggagacg ctgcaggcca agaaccgctg 360
 gatgatcaag acggccaana agtcctttgt ggtgtcggcc gcctccgcta cggagcgcca 420
 ngaatggatt agccacatcg aggagtgcgt gcggcggcaa ctgagggcca cgggccgccc 480
 gccagcacg gngcacncgg gaccctggnt ccccgacaag gccacggaca tctgcatgcg 540
 cttgcacgca gacgcgttc tctgccctca ccaagcggcc aacaactggn cgcaaagttc 600

gggtttccnt ggtctgcgct gaann

625

<210> 4144

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4144

agaagcatcg aaagcgttgg agaggtgtta ccggaacggc ggcgacaagg gtgttcccga 60
 actagagtgg ggcatacata atcttctgc tatgcttcga agctgtagtc tgaatcaacc 120
 taagttttaa acagaaggtg aacctctgag atagaaaatc aagtatattt taaaagaagg 180
 gatgtgggat caaggaggac agccttggca gcagtggccc ttgaaccagc acaatggat 240
 gcagtcattc cagcaccaac aggatccaag ccagattgat agggctgcat tggcccaagc 300
 ttggattgcc caaagagaag cttcaggaca gcaaagcatg gtagaacaac caccaggaat 360
 gatgccaaat ggacaagata tgtctacaat ggaatctggt ccaaacaatc atgggaattt 420
 ccaaggggat tcaaacttca acagaatgtg gcaaccagaa tggggaatgc atcagcaacc 480
 cccacacccc cctccagatc agccatggat gccaccaaca ccaggcccaa tggacattgt 540
 tccaccttct gatgacagca acagtcagga cagtggggaa tttgcccctg acaacaggca 600
 tatatttaac cagaacaatc acaactttgg tgggaccacc cgataatttt gcagtggggg 660
 ccaagtgaac caagtttgac tatcaagcat gggggctgct tttggnccaa cgcaaggtgg 720
 gatttcancc tccttantgg gaaaccagga acctccaagg gacctcccag caacctcccc 780
 aagaatncna a 791

<210> 4145

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4145

gagctcatgc tacacaatta aatatattcc ttaaattattg tgtgcttgca acttttgatt 60
 ttgtaaatgg gttccacag gacaaaaatg agtcttaaac ataaaattaa accatatgaa 120
 tgtagtttt ttagttaatt tcagctgggt gtagtctat agtcccagct actcgagagg 180
 ctgaggcaga aggatcgctt gagcccagga gttcagggt gcagtgagct gtgatcacac 240
 cactgcactc cagcctgggg gaagagcaag accctacaaa caaaaaagag ttaattccat 300
 tatatttatt ttacatacc cagagtttga ctaaaatata ccagacaatc tcctgtcccc 360
 aaatccatgt ccaagcaagg ggagccacgt tttctaagct cacagttta aggttaaaga 420
 gacacactga ggaaaactca gggaaagaag ctgatttgca tggacactag gcctgtcggt 480
 gattccctca tttcaaaagt tgcattgtcc atgggaggcg gagtctctga ggacatcctg 540
 ggctgtgcct cgggtggctt ggactccagc tctacgcaga gcgccttaac actgtactgg 600
 aagaaatggg aaatcgcat gaggacttac agaagaatgt caatgacttt aatggtgcaa 660
 gctggcattg aaaattctat taaaggaaca aatgctgaag acctaactgc agcaatgtcc 720
 ggtatttggg ngatggggcc tcctacagaa gtcattaang gttacatccg ggtcctgaan 780
 ggggtggggg nccntcaatc caaacaaggg attcc 815

<210> 4146

<211> 719

<212> DNA

<213> Homo sapiens

<400> 4146

tatttttcga agatctctct aagtgacaaa tctagtaatc cataaagatg gcaatttcaa 60
 ggctaagcat gttctatttg gaaagttttt ccaatctcag aataaataaa atgcttctta 120
 ttggtatgta atatcagatt aagcagcagc taagtgaatg ctctgcatca caaagacctt 180
 ttagtagcaa catgacttga aacactagcg ttgtatacca cagttttcta acacgaagga 240
 gggattaaaa atgcaagctg gtaaaatgtt aatggttcta ttttgtccca cacaaattta 300
 tacctttata aattttcccc tcgtgaggga aaaatcaaag atgtcagatt tcaaattttt 360
 ttaaacaaaa ctccaactta taaattgggc ttttgaaaat gcatgatgaa acaaaaatac 420
 cattccgtga ctgcacttag ttctagcagg tacttttata attagcattt aaaaaataca 480

tttgattca ttcaatctgc ttcagaaatt tggtatgtag tgcgaaaaac cactttcata 540
 agcataagat aaactcttag aagttttttt tgaaggatgc ttttttatta agcattatgg 600
 aactaatact gtatttaaga caggaacccc tgggccctaa caagttgatt tatgcttccg 660
 anactaaaaa ataaagtatt actgancct ccacnggagn catttaaagg gnacctcc 719

<210> 4147

<211> 669

<212> DNA

<213> Homo sapiens

<400> 4147

gaagttggcg catgcgccta aagctgacgg gtttgaaatg gcttcgatgt tagccgggac 60
 ccgactcaga tcgatgctat agaagacaaa caagggaagg ttttttttcc ttttgcata 120
 tggctcaatt tggaggacag aagaatccgc catgggctac tcagtttaca gccactgcag 180
 tatcacagcc agctgcactg ggtgttcaac agccatcact ccttggagca tctcctacca 240
 tttatacaca gcaaactgca ttggcagcag caggccttac cacacaaact ccagcaaact 300
 atcagttaac acaaactgct gcattgcagc aacaagccgc agctgcagca gctgcattac 360
 aacagcaata ttcacaacct cagcaggccc tgtatagtgt gcaacaacag ttacagcaac 420
 cccagcaaac cctcttaaca cagccagctg ttgactgcc tacaagcctt agcctgtcta 480
 ctctcagcc aacagcacia ataactgtat catatccaac accaagggtcc agtcaacagc 540
 aaaccagcc tcagaagcag cgtgttttca caggggtgg gttacaaaac tacatggnta 600
 catttgggat ttgtgggatg aagatgtatt ctttcagct angtgctgtc aaaggggaaa 660
 accccccca 669

<210> 4148

<211> 814

<212> DNA

<213> Homo sapiens

<400> 4148

tagctttcct	cacctcagga	ttctagcttt	tgttctatgg	aaagagatga	ggaagactct	60
ataatcgtct	cagaaggaat	aattgaggaa	tacctagcat	tcgatcacat	agatatagaa	120
gagggatttc	atgggaagaa	atcagaagca	gctacagaga	aacagaaatt	agggtatcct	180
cccattgctc	cattttactg	catgaaagaa	gatgtccttg	cttatgtgtt	tgacagtgtg	240
tgggtcaagg	ttgtgagctg	tatggagcag	ttgacacgta	gtcactggga	aggatttgcc	300
tctgatgatg	agagtaatgt	tgcagttacc	agacccgatt	cagaaagttc	ctgtgtgctg	360
agtgaactac	atcctttggt	gttaccgcga	gtgccacagt	ctaagggtgct	gtacattacc	420
tcaaataccga	tgagtctctg	tcaagcaagc	agacatcagc	caaattgtgaa	tgatctcttg	480
gttcatggaa	tgctctaca	gccaaagaaat	ctctccctaa	tggacaagct	cctagatctt	540
gatgacaagc	tacttatgag	gcctgggtcc	agtaccatcc	tttcaactcg	aaattggcca	600
aatcgagctg	tggagtttag	tacatcatct	ctgtcataca	caagtncagt	ccaccaggag	660
gacgcaatcc	accaccacga	aactcttcat	ccgattangc	acgangccat	tcatgtgnct	720
ggaaacacca	agatctggtg	gaaagaaatc	ctcaagaggg	agccccgagtc	ccaantggna	780
cccggactcg	ctctcccttc	tcctcancg	gang			814

<210> 4149

<211> 664

<212> DNA

<213> Homo sapiens

<400> 4149

agaacgcgct	ctcagcttcg	ggctcctgcgg	ctgcggctgc	cgccatcatg	gtgcggaagc	60
ttaagttcca	cgagcagaag	ctgctgaagc	aggtggactt	cctgaactgg	gaggtcaccg	120
accacaacct	gcacgagctg	cgcgtgctgc	ggcgttaccg	gctgcagcgg	cgggaggact	180
acacgcgcta	caaccagctg	agccgtgccg	tgcgtgagct	ggcgcggcgc	ctgcgcgacc	240
tgcccgaacg	cgaccagttc	cgcgtgcgcg	cttcggccgc	gctgctggac	aagctgtatg	300
ctctcggtt	ggtgcccacg	cgcggttcgc	tggagctctg	cgacttcgtc	acggcctcgt	360
ccttctgceg	ccgccgcctc	cccaccgtgc	tcctcaagct	gcgcattggc	cagcaccttc	420

aggctgcagt ggcctttgtg gagcaagggc acgtacgcgt gggccctgac gtggttacgg 480
 accccgcctt ccttgtcacg cgcagcatgg aggactttgt cacttgggtg gactcgtcca 540
 agattaagcg gcacgtgcta aaagtacaat naggagcgcg atgacttcga tctggaaacc 600
 tacggatntc ccactttgna atgggntgtc ttttacagat gggaaaactg gagggntcga 660
 tgct 664

<210> 4150

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4150

tgaatatgac agatgtaaat gggcagacac ctctcatgtt atcagctcac aaagtaattg 60
 ggccagaacc aactggattt cttttaaggt ttaatccttc tctcaatgtg gttgataaaa 120
 tacaccaaaa cactccactt cactgggcag ttgcagcagg aaatgttaat gcagttgata 180
 agcttttggga agctggttct agcctggata tccagaatgt taaggagaga acacctcttg 240
 atatggctct acaaaacaaa aatcagctca ttattcatat gctaaaaaca gaagccaaaa 300
 tgagagccaa ccaaaagttc agactttgga ggtggctgca gaaatgcgag ctcttcctgc 360
 tgctgatgct ttctgtgatt accatgtggg ctattggata catattggac ttcaattcag 420
 attcttggct tttaaaagga tgtcttctag taacactgtt ttttctgaca tctttgtttc 480
 caaggttctt ggttgggtat aagaaccttg tatacttacc aacagccttt ctgctaagtt 540
 ctgttttttg gatatttatg acttggncca tcttattttt tcttgattta gcaggagccc 600
 ctttctatct cagtttcatt ttcagcatag tagcctttct atactttttc tataaagact 660
 tgggcaactg atccaagctt cactaagggc ttccgangaa agaaaagaaa gtgaatatca 720
 tcancctttg caaaaaactg ggntctccgg gncttcaagn aacaattttg g 771

<210> 4151

<211> 662

<212> DNA

<213> Homo sapiens

<400> 4151

```
tctctccaca caccaagcaa gcactcctcc agcagacaca agctgggtgt cgtgtagttc 60
aattcaatcc taacactgtg tacctggaga taacatcaga cccacacaggt tgagtgtctc 120
gtcccccaag agtgtcctcc acttcagatg ccaactgcaa gccccaggtt gtggcctgtg 180
cttccgacag agcagccata aatcagggtt cccatgactc tccttctcag tttctgttaa 240
cttactagag gttctcacat aactcaggga gacacttaca ttaccact tattatgaag 300
gacattataa aaaatacaga tgaacaacca gatggaaaag tgtatagatt aaagtatgga 360
agaagggaca tggagctttc atgctctcac tggcacatta cttccaaga aactttcaca 420
tgttcagcta cccagaagct gttccaaact ctgccttttt gagtttttat ggtggcttca 480
ttgcataggc atgattgatt atatcattgg ncattgntga tggccaactc aatcttcagc 540
ccctctccct tctccaaagg ttanggctga aaagtctcaa atcctctaaa ttatggctct 600
ggggctttct gggaaccanc tcccatccct ggaancatc ttangggttc caacaaccgt 660
an 662
```

<210> 4152

<211> 746

<212> DNA

<213> Homo sapiens

<400> 4152

```
acatcttttc ctttcccan aagagatccc taacctattg ttttattgac agccttgctg 60
ttagaggctc tttccagaa gttggacgaa gaggctcagg cgttgctgtt tcttgtcttc 120
caagtcaagt ggttactctg gtaatggatt gcctctctcc gagctttcac cctggtgaga 180
ctgtccagat ctagtctgta aaccagctt agaagcactg ttgtaaaaat gactgaagag 240
cccatcaagg agatcctggg agccccaag gtcacatgg cagcgacgat ggagaagagc 300
cccaagagtg aagttgtgat caccacagtc cctctgggtc gtgagattca gttgatggct 360
gctacagggg gtaccgagct ctctgctac cgctgcatca tcccctttgc tgtggttgtc 420
```

ttcatcgccg gcatcgtggt caccgcggtg gcttacagct tcaattccca tgggtctatt 480
 atctccatct ttggcctggg ntgttctgtc atctggactt tttttactag cctccagtgc 540
 cttgtgctgg aaagtgagac aaaggagcan gaaagccaag agacgggaga gtcaaacagc 600
 tctcgtggca aatcagagaa gcttgtctgc ttgagactga atacgaccaa atgggccatt 660
 gggcctggaa aacgtgctcn gaacttggca cccaattcac cangaaacca atggtgggag 720
 agaacangac ttggcgnttg ggcnaa 746

<210> 4153

<211> 703

<212> DNA

<213> Homo sapiens

<400> 4153

attttactct tatcgtgctt tccagaaagt ttgcctgctg ggagagtctt ttgatcgtt 60
 tcccatgtgt tgtcagatag ctccatagaa ttcagtttct gagaaccagc cagaagcatg 120
 cagtgcatt gcacaatctg cctctgaagc tggagatact agctgcagag ctcaggggag 180
 ctgctccaca tcaccgacat gaagggaaca ggcatcatgg actgtgcgcc caaggcactc 240
 ctggccaggg cactttatga caactgccct gactgctctg acgagctggc tttcagcaga 300
 ggggacatcc tgaccattct ggagcaacac gtaccagaaa gcgagggttg gtggaagtgt 360
 ttgctccatg ggaggcaagg cctggcccct gccaacgcc tccaaatcct cacggaggtc 420
 gctgcagaca ggccgtgccc cccattcctg agaggcctgg aagaagctcc tgccagctca 480
 naggagacct atcaggtgcc cactctaccc cgccctccca ctccaggccc cgtttatgag 540
 cagatgagga gttgggcgga ggggcccagc ccctactgc ccaagtctat gaattccccg 600
 aacctccan cagtgccagn atcatctggt gaaaaagact ctcanctttc caaaaacaag 660
 ggccatcctc acgcttccca anacctgtcc cggggctcac tgn 703

<210> 4154

<211> 720

<212> DNA

<213> Homo sapiens

<400> 4154

```

caaattatta ttgtctctta ggtttggata ttgatgggat atacagagta agtggcaacc 60
tcgcagtgat ccagaaacta aggtttgcag tcaatcatgg taagattata tttactgttg 120
ttattcagat gcactactca taactttttg aactggctta aagtaatttt ttaaaatgtc 180
caattcctgc tgtttttcag atgagaaatt ggacttgaat gacagtaa at gggaagatat 240
tcatgtcatt actggagccc tcaaaatgtt ttttcgagaa ttaccagaac ctctttttac 300
atttaatcat tttaatgatt ttgttaatgc aattaagcaa gaaccaagac agcgagtcgc 360
tgctgttaag gacctaatca gacagttgcc aaagccaaac caagacacaa tgcagattct 420
tttccgacat ctcaagagag ttatagaaaa tggagagaaa aatcgaatga cctatcagag 480
tatagcaatt gtttttggtc ccactctatt aaaaccagaa aaagagactg gtaatatagc 540
aagttcatac tgggtaccaa gaatcagatt gtagaattaa ttcctcctgg aactgagttc 600
catcttcgga cggttgattc ctactgaaga caaccctgtg gnataaaaaac tgggattcca 660
tcagatttca aatggttata cacaaatggn antttaattt tttggnccaa agcantgacc 720

```

<210> 4155

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4155

```

gattcttccg gtttcaagaa gttaaggctg gtgtcctggc cccagtccac ctctgggagc 60
gcctgcgccg ctccgcggag agtccgtgga tctcacaggt tcccagtttt ccagacctga 120
agtgttttcc agtcaaagcg aagagacgat ctgtggatgt tgaatatgca aggagctgaa 180
gagagagaca ttagaagaga gacttgtcca ggctgggtaa acaagaacaa gcctgctctg 240
gagcaggatg tctgtaaaat tgactcatca gggatagtag taaagagggt ccaagaggat 300
gaataccaag attctacatt tgaagaaaaa tatgcatgtg agggcatgaa ggaaaactct 360
cctagggaga ttgctgaatc atgccttttc caggaaggag gttttgggag aataactttc 420

```


atccacaaag aagcaccccc tgaaattatt agtcaaggat ataattttga gaaaagcttg 480
 cttttgacct caagccttgt tacacgtctc agggtttcta cagaagagag tctgcatcag 540
 tgggaaacaa gtaatatata aaccaatgat atttcaaacc aaagtaaagtg tccaactctc 600
 tgcacacaga aaaaatcttg gaaaatgtta tgaatggtgg gnaaaacctt tactcannag 660
 ctcatccctt acccaacatn agngg 685

<210> 4156

<211> 740

<212> DNA

<213> Homo sapiens

<400> 4156

atcccacggg atcaagcatc agcaacgtgc agctggcaga cactgtcatg ttcaccattg 60
 gagctctgtc tgaatggctg gctgaccacc ccgtcatgat caacagtgtt ctgcccttgg 120
 tactgcatgc cctaggcaat cctgagctgt ctgtctcttc tgtgtccacc ctcaagaaga 180
 tctgccgaga gtgcaagtat gacctgcctc cctatgctgc caacattgtg gctgtgtccc 240
 aggatgtgct gatgaaacag atccacaaga caagccagtg catgtggctg atgcaggcgc 300
 tgggcttcct gctgtcagct cttcaagtgg aggagatcct taagaacctg cactcgttta 360
 tctcacccta tatccagcaa ctggagaagc tggcagagga gatacccaat cctccaaca 420
 agctggccat tggtcacatc ttggggcttc tctccaacct cttcaccaca ctggacatca 480
 gtcacatga ggatgatcat gaaggccctg agcttcggaa agctgccaag tgccacaggg 540
 acccaacccc gtggtggtgg tgctgcanca ggtcttccaa gcttatccag aagggtgctga 600
 gcaaattgggt taaatgatgc ccaagttgtg gaagcggtgt gcgctatctt ttgagaaaat 660
 ctgtttaagg ngctgctggg attaatcttg ccccccattg ggccacaag ctgtgtttaa 720
 natgcntggg tccggnntgt 740

<210> 4157

<211> 776

<212> DNA

<213> Homo sapiens

<400> 4157

```
attgggtgtt atctaagcca ataaaacatt gttgattata ggtttgggtgt tttgaccatt 60
agctgacatt tgattaacct ttttttctat gataagagaa ccatgggtcac ttttaagcat 120
ataatgaact tttatatttt taacagaaga taattgtttt aaaatattac acttattacg 180
tgtaattatg tctacagggc tcactcagct atccattttt gttgtctgtt ggggaaatac 240
tccttaagag gattgtgtgc acaatattaa gttatcatta atcaaatatt ctcttctggg 300
agataatttt tatgtgttaa agtagtctca ctatggaaaa acttctaata taactattaa 360
atgtctctcc tcacttacgt tatttttaga gttactgtga caacaacata ctttggccac 420
tctgaacaga tatcccagga gaggtatcag tatgtcgact gtggaagaaa cacaacttat 480
cagttggggc agtctgaata tttaaatgta cttcagccac aacagtataa actggaagag 540
atggatttaa ngaagaaata tctattgnta tttcctatac tctcaatgaa gaggtatttc 600
cnaataggag acctaaatt gaacaaacct aaaggttaca cttctaagag tacagttaaa 660
aagtatgtgg acctgcagtt cttgtaactc tccactctgt gttaatggat aaaattggac 720
canggatcct tttacttgaa atcctaaatt taccngggnt gatttccctt tctcca 776
```

<210> 4158

<211> 667

<212> DNA

<213> Homo sapiens

<400> 4158

```
ccgagtgcct cttctcaggg ctcaagtctg accgtagcca cgtcctgcct cgcgccgccc 60
ctcgggcctg acctggaagc tccgtcagct ccgtccttgt ccttagagct gagcccagac 120
cccgggggtct ggccgaatcc tcacccccag ggcagtgttt ttggtctgcc accttcagga 180
aaacggctgc ggcctcggcc tcccttcggg caccaggaa tgcgggggtc tgctcagtc 240
ccccaccctc catgtccaa cccccggggg ctgcggagcc tgctgcccc tccccgcggg 300
tggggacgtt ctatgcaata cagggttcca ctttagaagt gcgcgcggct agggtcaccg 360
```

cccgcccttc ccggcgcagc ccccgagctc cacagctgag gcagccccctc tggctttctaa 420
 atccgcggtc gggattcttc ctctgttta gtttttagt ttttccttaa aaaaaaaca 480
 cacatcgatg gactttgctt ccctgttctt gaagaatact tgaatgtcgg ggggcctggg 540
 ggtggggggc tcggagaccg tctgccaagc cctgctgcc ctcctgaatc tcgtatgatg 600
 gtcacantcc ggtggccgtg ggggtgctct gccttcctg gnccccantg gcccaaatc 660
 tgntggn 667

<210> 4159

<211> 793

<212> DNA

<213> Homo sapiens

<400> 4159

tgttgaatgg gtctatgaat agaagaagca agtacaggtc acaatggagg tatanaggag 60
 ggacatttaa cacagactgg aggagacgac acttgtgcta ggggttgaag gaaatgtang 120
 tgtgagccag gcaaagaatg ggaggaagat gtttttcagg gatcaagccc aaatccattc 180
 attggtaggc caagaattca ttgtcagtaa atctttgggt ctctgttga gaagaacant 240
 gattgtatta gtcagttctc atgctgctaa taaagacgta cccaagtctg ggtaatttat 300
 aaagaaaaag aggtttaacg gactcacagt tctacatggc tggggaagcc tcacaatcat 360
 ggtggaaggc aaaggaggan aaaggcacat ctacacagt ggcaggcang agggcgcttg 420
 tgcaggggaa ctccctttta taaaaccatc agatctcatg agacatatca ttatcatgag 480
 aacagcatgg gaaagacca ccccatgan tcanttacct cccacgacat gcgggaatta 540
 tgggagctac aattcaagat gagatttggg tggggacaca gccaanccat atcaatgatg 600
 ctaaataaac ccattggtta cactcacaga agtaacctgg atcactgagt ccccatgtng 660
 gttaaaatta agactgccct tttctgtaan gggaaaatat tttgaacctt aggggcttct 720
 caaaaaagg gttttggtga gancctttgc caancaattc cttantcaaa ggccttcaag 780
 gacaaaccn gc 793

<210> 4160

<211> 755

<212> DNA

<213> Homo sapiens

<400> 4160

```

tcctttgtca aagatcaagt tgaccatatt tatatggatc tatttctggg ctctctgttc   60
tgttgcatg ctctctatct gttgtccttc ctttactgc taccatactg tctttgattc  120
ctatagcttt acagttagtc ttgaagtcac aaaagcatgg gatcccccat tagtggatcg  180
tcctggaatt tttactctc agatttgtac acacctagcc ttcagcaatt tgtgaattac  240
agttcagatt ttcctaccct agcactgggt cccaaagagg tttctgttaa agtatgttgt  300
gattctctcc atctacgact ttctcttctt atttttggga cagaggtttg tcttgtgacc  360
tcacttctct tacagatcta agagtaatgg ttgatttttc aagtttggtc aactttttac  420
ttgttaggat agagtgggtg ctccaagct tcatgcagaa ccggacaaca gaaattgaga  480
gggaaatttc tatgacagaa gagagaaaga agaaaattgc tggaataatg accttgaata  540
gaggaaatgg gatatcatct ggtaagcaaa tagagaagct ggcttttagat aagagcctgg  600
acaattcatt catagaatag cagaaaaggc agaatttatg tccatagatg caagtggtaa  660
angtagatat agtgatggga atttgtaaaa agttaccttc caaatgccaan tttttttaaa  720
ngaaattaag gaaancaaan gtcaatcaaa ctcaa                                755

```

<210> 4161

<211> 694

<212> DNA

<213> Homo sapiens

<400> 4161

```

atcaggatgt ctgagaggag agcatgggtg ttttgcttca ttggatccat gcaggctctg   60
gagggtgggt gccactctt tctgggccaa gtagagggtg gctcagacac ccccccttcc  120
tccaggcttc tcatctgtaa ctggtgaagc ccggaagagc ttgttggtca agaggaaatc  180
ttgtgttact tctttatgaa ggactccagc ctggtggaga tgaatgagtc ctgaagatgg  240

```

aatcgaagct gtttgggcac aatacttta tcagcattta atgacccagt cgaaaattca 300
 ttgtttggac ccaagcactg gtgggaaagg caggagggga ggcctgcctt ccttcctccc 360
 tcccagagccc tacagcaggc catggagtgg tgagcgagtt cgtacagtgc caaccacatt 420
 cccagaaaact tccagcagag gttaatcctg ctctctcaa gtangagaca atgaatggat 480
 ttttaacaaat ggactccctg tgtttagctaa tgccaagtcc ctactcaacc taggatgact 540
 ccaatggcgc atgtcccat tcccgggccc taaggctgcg ctaacatgct atcctgcctg 600
 ccccttcatt ctccaacctg gcacattccc actcctttcc cctcccaana cggaaagnca 660
 tgncttgac ntgggacacc ccttcatac caan 694

<210> 4162

<211> 752

<212> DNA

<213> Homo sapiens

<400> 4162

tanaaanaac atttgccatg aaggactttt caggtgtttc agatgctgac aactcatcca 60
 tgaaattgaa ccaggatgtg ctattagtta atgaatcana aaagggaata ttanatgaag 120
 ataatgaaaa agaaaaaagg gactcttttag gcaatgaaga atctgttgat aaaacagcat 180
 gtgaatgtgt aaggagtcca agggagtctt tggatgacct gtttcaaata tgttctccat 240
 gcgccattgc aagtggncct cggaacgacc tggctgaatt gacaacatta tgtttggagt 300
 tgaatgtatt gaattctaag atcaaaagca ccagtggaca tgtggaccac actttgcaac 360
 agtactctcc tgaaattctg gcttgccagt tcctgaagaa gtacnttttt ctctgaact 420
 tgaaaagagc gaaggagagt atcaagctta gttacagtaa tagcccttct gtttgggata 480
 cttttattga aggattgaaa gaaatggcaa gttccaatcc tgtgtatatg gagatggaaa 540
 aaggagatct accaacaagg ttaaagttac tagatgacga ggttcctttt gatagtccgt 600
 tgttggntgt ttaagctacc cggttgtatg aaaagtgttg ggaagtctgc tcttccgatc 660
 cntaatcaag ttctttccan ccattttgcc atcgatatc atnaaacttt ggcancatca 720
 acctgctgan gtttttgggg ccaatttaaa ca 752

<210> 4163

<211> 665

<212> DNA

<213> Homo sapiens

<400> 4163

```

agttggtgag catcatggca accgttacag ccacaaccaa agtcccggag atccgtgatg    60
taacaaggat tgagcgaatc ggtgcccact cccacatccg gggactgggg ctggacgatg   120
ccttgagacc tcggcagctt cctgatgtgg tagaaatgcc atggtagccc cacaggaaat   180
cacctcatgt gcgcctccca cccacaggct tcgcaaggca tggtaggtca gctggcggca   240
cggcgggcgg ctggcgtggt gctggagatg atccgggaag ggaagattgc cggtcgggca   300
gtccttattg ctggccancc gggcacgggg aagacggcca tcgcatggg catggcgcag   360
gccctgggccc ctgacacgcc attcacagcc atcgccggca gtgaaatctt ctccctggag   420
atgagcaaga ccgangcgct gacgcaggcc ttccggcggt ccatcggcgt tcgcatcaan   480
gaggagacgg agatcatcga aggggaggtg gtggagatcc agattgatcg accagcaaca   540
gggacgggct ccaaggtggg caaactgacc ctcaaggacc acaganatgg gagaccatct   600
acgacctgng caccaagatg attgagtccc tgaccaaggg acaangtcca aggncggggg   660
acgtn                                                                    665

```

<210> 4164

<211> 733

<212> DNA

<213> Homo sapiens

<400> 4164

```

ctttcttgat gccgttacgt ccatggattt tttccagga ttaaatttgg aaggctatcc    60
taacagagac agtacgaaat atgctgagat ttatggcatt tcttctgctc acactttgtt   120
gcgggggaca ctgagatata agggattgga atgctgaata atggattgga atgttgaata   180
atgttgaata ccttcctatg gtatcctccc taactccttc cccttgaacc acccagcccc   240

```

atctatggat atatgaaagc tttgaatgga tttgtaaaat taggtcttat aaacagagaa 300
 gcgcttcttg ccttttagacc tgaggccaac cctctcaccg ggaacaact cctctgtgac 360
 ctagttggga tttcaccctc ctctgagcat gatgtgtga aggaagctgt tcttaagaaa 420
 ctaggaggag acaataccca gttggaggct gctgaatggt aggcacccac cactcaactt 480
 agagcaaat atactgggat caatgattgc taatttctac tcaaaaaaag ttaaattttt 540
 tacatttgtc tttgattaat tcgttgctcc aatgtgggta gagagattac catgtgccat 600
 gttcatgtgg gcataaagag tagattaaag agaggagctc aatgggcaat tnagaatttt 660
 gngaaaatgc ttatctcgaa acactttacc actcagttcc caagcatann gggggtattt 720
 ttgctttccn ggt 733

<210> 4165

<211> 690

<212> DNA

<213> Homo sapiens

<400> 4165

ataaataaaa tccatatttc ctctcataca gaccccagag ttgctttgcc tgacagtgtg 60
 gttgatggag aaaataatct ttatccttag cctccatctg gttgcagacc ataaagacag 120
 ggaaaaaatg aggggtgttg tagcttcgtt agaaactgaa agctcactga tttttcaaa 180
 acctaaatag cctgtgtttc tccaaataac taatttgcag ccttcggcag ccaggactgg 240
 cagggatggg gctaggggga ctggggagaa ctgctctctc ctgagggttg tctgaccga 300
 cagcacgcat gaccttccca cagtcaggaa ctgctcagag acgtgatggc aactccatag 360
 aatgaaatac tcttcagcca gtaaaatgta tttttggata aatatttgct ttaaaaaact 420
 ttactatatg ttgttaaag aaaaaaaac cttaaggnat cagaaattat gtgcagtaaa 480
 atctcacttt tgtaaataaa tatacctgtt tactacgtat gcataaaaag aatcctgaga 540
 aatataagta ctgtatgcat attggttggt aaagtanttt ttccggttgc ttatctanaa 600
 ntcnaattt tgcttcaaag gaaaaagttt actccgggca atattaaaaa attaanataa 660
 ctaattttgg ccttgtcaat caaaaccagn 690

<210> 4166

<211> 731

<212> DNA

<213> Homo sapiens

<400> 4166

```
gcaccgggaa aataacaatc gtatttcagg ttgaaagctc ctattactgc tgggttttgg 60
aggctgcgat aaaatcttca tcgacgtgaa ggtaccttct gggttggctt gggtcgtaag 120
tcctaagatg ggggccgtcc ttccctgggg gcagggacgt agggaaccag gcggtgggga 180
gggagaaagg agcgacgagg tcagaggaaa ccttgggttt ccaaggctcc tggggcacca 240
aagggttcc cgagtcggg gaattgagcc ctggggagga gccttttgcg agaacgtgag 300
cgcgcccaa cagcctcag acctcgtaaa cccacttggc aaagaccggg gaagcggctg 360
gcggaccgac tgcggtgaac tcaagaaatt aacctgcgt gcaactaaac gggctgccgc 420
cctttcacac tcacctgag cgaccgagat agagaaagct cccgaaccgg ncgcgggggg 480
acttggtcc accctcccgt cccgggagaa gangacaaaa aggggagatg gacttggat 540
ggccccgcc ttcacaagcg ctccaatcct tggaaccaa acctccttc caaagcctcc 600
acgtctagaa gggacaaagg cagcgaagga gattcagaga cccgacggg aaatggtggc 660
tttcaaggct tctgggtgtt gggttgcag ggggaaaagg tacnatggn taaactttcc 720
aatcaannaa t 731
```

<210> 4167

<211> 493

<212> DNA

<213> Homo sapiens

<400> 4167

```
agccatggag caggcacctc cggaccccga gcggcagctc cagccggcgc ccttggagcc 60
gctgggctcc ccagacgtg ggctgggggc tgcggtcggc aaggaagcgg agggggccgg 120
agaagagagc tctggggtcg acacgatgac acacaataat ttttggttga agaagataga 180
```